

A STUDY OF THE ROLE AND FUNCTIONS OF
SCHOOL NURSES IN ELEMENTARY AND
SECONDARY SCHOOLS IN OREGON

by

Mildred L. Day, B. S.

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APPROVED:

[REDACTED]

Lucile Gregerson - Associate Professor

[REDACTED]

John W. Brookhart - Chairman, Graduate Council

PREFACE

This study is written to provide information regarding the nurses' contributions to school health programs in elementary and secondary schools in the state of Oregon. It is believed that knowledge of the activities which the nurses perform as well as their opinions regarding the importance of certain of these activities will be a step toward helping them to evaluate their functions and more clearly define their role. It is anticipated that the data and findings of this study will enable nurses to identify more clearly the areas in which their services are concentrated and to ascertain the extent to which the health needs of the increased school population are being met.

Mildred L. Day

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CHAPTER I
INTRODUCTION

1. The Purpose of the Study

Nurses give service to schools in all parts of the country. In some school systems they are employed directly by Boards of Education and devote all their time to work with the school-age children. In other areas nurses are employed by the Departments of Health or voluntary agencies and give services to the schools as a part of a generalized public health nursing service. Regardless of the administrative framework within which the nurses work, their purpose remains the same--the promotion and maintenance of the health of pupils and school personnel.

It is impossible to think about the ways in which the services of the nurses can best be utilized in the school health program without considering the overall health plan for school-age children. Programs vary from community to community in accordance with the changing health needs of the areas involved.

Health personnel, employed on school and community agency staffs, vary as to the scope of their activities in performing the total health job. Considerable dis-

agreement arises because some of those who have a part in the school health programs are not always in agreement as to what the nurses could and should do. Sometimes there is a wide difference in the job requirements set up for the nurses and the activities which are considered to be approved school nursing practices. Nurses themselves have expressed concern because their role is ill defined and they cannot meet all of the demands made upon them; frequently they are torn between the demands of the job and the practices they have been educated to perform.

It seems essential, therefore, that school health programs be designed realistically in terms of both personnel and anticipated outcomes, that the role of the nurses be kept fluid to meet the divergent needs of the varying programs, and that nurses as well as other school and health agency personnel, define their functions, co-ordinate their activities, and plan with others if the best interests of the school children are to be served.

(18: 5)

Among the 36 counties in the state of Oregon, there are different types of administrative units in the school systems, there are differences in the organization in the public health departments, there are varying plans for the administration of health services for the school-age children. The activities of the nurses within the programs also vary. Since nursing is only one professional area of

service among several in the schools concerned with the well being of the children, clarification of the types of contributions that the nurses can make will prove helpful not only in planning how best to utilize their services but also in giving school administrators and other school personnel and the community a broader understanding of nursing.

Therefore, the purpose of this study is to identify the various activities which nurses who work in school health programs in the elementary and secondary schools in the state of Oregon perform; to analyze the activities according to frequency and concentration of services; to determine if the scope of activities varies with the administrative structures; and to determine the relationship of nurses' perceptions of the importance of selected activities to the actual performance. The establishment of definite functions and activities will aid the nurses and school personnel in identifying more clearly the nurses' roles, the areas in which they function with greatest latitude, and areas in which their services are not being utilized.

The broad problem.-- Health is one of the primary objectives of education. Health was listed as the first of seven cardinal objectives of education in the 1918 report of the Commission on the Reorganization of Secondary Education. Three decades later the Educational Policies

Commission of the National Educational Association stated:

"Until the school knows the health status of a student, it obviously is impossible to plan with full exactitude his educational program.... Wise and continued guidance in all experiences that make up living for children is the most effective means of educating them to healthful conduct. Such guidance must be individualized and continuous. It must be adjusted to the ability of the individual to assume self-direction and responsibility in controlling his own conduct in relation to the health aspects of everyday living, not only in the school but also at home and in the community." (24: 1/4, 217)

More recently, the Supreme Court of the United States has said: "Today, education is perhaps the most important function of state and local governments." The Education Study Committee of the Governor's State Committee on Children and Youth for the state of Oregon has subscribed unhesitatingly to the above declaration and has further stated in reference to health:

"The educated person knows the structure and the functions of his body, is aware of hazards to his own and community's well-being, and knows desirable mental and physical health practices. His health practices are based upon factual information. He understands the role of health services in the welfare of the community and the importance of good health to himself and others. He understands the inter-relationship of mental and physical health.... (The committee believes and recommends that:) an instructional program should be planned to include in a balanced relationship special services such as guidance and counseling, instruction for migrant children, for the physically handicapped, for the talented, the academically able, the slow learner, the emotionally disturbed, and the average student." (11: 4, 15-18)

Thus, with the responsibility for education resting

squarely upon the shoulders of the people and with the acceptance by the people that health is one of the goals of education, the partnership of education and medicine essential for school health programs must of necessity look at the broad and specific health problems that are predominant today. These are different from those of a generation ago and vary considerably among the communities and even the neighborhoods.

The foremost problem considered in its expanded aspects is what to do to establish and maintain health for the increased number of the child population. The health of the child population has always been a matter of national concern, but it has become increasingly important with the rapid post-war growth in their numbers. The school-age population in the United States has been increasing steadily since the close of World War II, and is expected to continue rising in the foreseeable future.

There were approximately 45 million children in the United States at ages 5-17 years in 1960, and this number is expected to increase to 53 million in 1970 and to 59 million by 1980. Approximately 14 million children will be added to the population of elementary and high school age in the next two decades. This represents a gain of almost a third and reflects the record number of births throughout the post-war years and the anticipated continuation at a high level.

The elementary schools have already experienced a marked increase in enrollment; however, during the next five years, the number of children 5-13 years of age is expected to increase an average of about 1/2 million annually to 36-1/4 million in 1965. By 1980 the group may number 42-1/2 million, one fourth more than at present.

The number of children of high school age, 14-17 years, will climb to 14-1/2 million by the mid-1960's and to 16 million by the close of the decade. This means that the population at the high school ages will grow by 42% within the next 10 years. (21: 4-6)

Although the figures quoted above are for the national picture, the trend within the state of Oregon has been consistent with the pattern. Pupil enrollment within the Oregon public schools alone has shown over a 6% increase within the last 5 years. Since 1949, the total school enrollment from kindergarten to 8th grade has increased 46.9%. Enrollment in grades 9-12 has increased 48%.

(32: 70) It is evident that for many years to come the United States and the state of Oregon will be confronted with the problem of providing adequate educational facilities and personnel for the increasing school population.

One aspect of the broad problem relating to the health of the school child arises in the administration of school health programs in the various communities. Many people in the fields of education and health feel that often pro-

grams continue practices which, though appropriate several decades ago, are hardly effective today in meeting the major challenges of the present generation. Seemingly, there has not been enough recognition given to the ways in which health problems have changed. Communicable diseases and other acute conditions are now less important in an overall school health program than they once were. More attention is needed for coping with problems accompanying growth and development, adolescence, and handicapping conditions of children. (19: 9-14)

Another administrative aspect which arises from the broad problem of health services for the increasing school-age population is the controversy between community health groups and the schools as to who is responsible for administering the various phases of the the school health program. There are primarily three points of view as to where the responsibility lies. One group feels that the board of education should be responsible and points to the fact that the Tenth Amendment of the Constitution of the U. S. leaves the authority for education among the powers of the states. The states delegate this authority to the local communities, which, in turn, vest the authority in the board of education and make it responsible for all education. Health education logically falls under their jurisdiction.

Another group advocates that the school health program should be controlled by public health officials and points

out that health is logically a province of the medical profession and should, therefore, be under the supervision of medical personnel, such as those found in most public health departments. They uphold the fact that the school is a part of the total community and that the pupil is a part of the school environment for only a limited time. They argue that public health nurses are qualified to administer a health service program, especially in respect to home-school-community relationships.

Still another group advocates that the school health program should be controlled jointly by both the board of education and public health officials. They feel that through cooperative working together greater health progress can be made. (6: 101-103)

From the broad problem of providing a program of school health to meet the needs of the increasing school-age population, it is evident that consideration needs to be given to specific problems of identifying health needs, of clarifying administrative structures, and establishing programs for meeting the changing health needs.

A more limited problem.-- Within the last decade there has been an increasing awareness that professional medical people can apply their special knowledge and skills to working with the school children. For a long time nurses have been studying ways of improving their work in the schools. They want to know how they can make the best contribution

to meeting the health needs of the child. They need to know how they can adapt the overall general policies which guide their work to each individual school and what their place on the health team can best be.

Poe has pointed out that considerable consistency was observed in a large number of activities of nurses functioning in school health programs, but often there was failure to see the total picture as it existed. One problem area which ranked high in importance was a need for overall school health planning, yet the percentage of nurses who assisted in developing a means whereby school health programs were evaluated ranged from 32 to 83. It appeared that nurses realized the importance of coordinated school health planning but did not always perceive their part in the program. (30: 201-203)

Richie has expounded on the administrative problem which has recently been given increasing attention--whether nurses in the school health programs should more appropriately be employed by schools or by health departments. She has pointed out the concern with which nursing administrators in generalized public health programs are witnessing a slow but steady exodus of their experienced personnel into school employment. There is general feeling that the school health programs in many ways duplicate and parallel the health department programs. Both agencies carry on screening activities, make referrals for individuals need-

ing remedial care, participate in the follow through for correction of defects, concern themselves with the environmental aspects of health, make home visits, and keep records. Therefore, there is real reason to question whether the intensified health services now being provided school children are justified when the expense of administering two programs and the scope of activities for the nurses who serve the school-age children for a period of approximately 180 days during the year are considered. (34: 1254-1255)

Grossman has also emphasized the conflict which exists regarding the administrative framework within which the nurses function. He felt that considerable attention and comparatively little research had been given in the literature to the problem of the best administrative framework within which the nurses could successfully carry out their activities. He raised the question as to whether the school nurse should be a specialized worker employed by the school system, or should the work of the nurse in the school be a part of a generalized health program carried on by a health department nurse. (15: 21)

Wishik has presented pros and cons for two of the patterns of school health service which exist in the United States. He has pointed out that considerable argument and conflict has occurred in recent years between proponents of the two patterns and that extension and improvement of services have at times been hindered by the disputes. He

has further maintained that a flexible and dynamic approach to the needs of any given community should be considered and that agencies involved in providing an effective school health program should look carefully into the way their services are organized to determine whether or not revisions are necessary. (47: 819-823)

As far back as 1938, the National Organization for Public Health Nursing, in reviewing the problem expressed the opinion thus: "After all, the type of administration is secondary in importance to the quality of service rendered." (25: 135)

Thus, from the broad problem of formulating a school health program to meet the needs of the increasing school population, emerges the more limited aspects as to the identification of the nurses' role and functions, to the utilization of their services for the most effective contribution to the total health program, and to the administrative framework most appropriate for the provision of services.

2. The Statement of the Problem

It is recognized that there are bound to be variations in service, depending on the specific health needs of children and on such factors as the types of schools and school districts, the sizes of the schools, the characteristics of the people in the communities, their resources and the funds available. Every school has numerous opportunities

for promoting the health of pupils and members of the communities.

It is also recognized that services rendered by the nurses are often dependent on administrative regulations and policies laid down as to areas which their services should encompass. Therefore, this study was undertaken to clarify a pertinent problem which relates to school health programs and the work of nurses in the schools.

What is the role and what are the functions of nurses who give service to the elementary and secondary schools in Oregon?

The study was also designed to seek solutions to the following questions:

1. What are the areas of service in which the efforts of the school nurses are concentrated?
2. What are the administrative structures within which the nurses work?
 - a. Do the areas of concentration of services differ with the various administrative structures?
 - b. Do the nurse-school and the nurse-pupil ratio differ with the administrative structures?
3. Do the areas of concentration of service differ from the areas which the nurses' perceive as most important to the health program?

4. What is the educational background and preparation of the school nurses in the state of Oregon?
 - a. Do the nurses meet the requirements outlined by the American Nurses' Association?
 - b. Do activities performed differ in accordance with educational preparation?

3. The Hypotheses

The study will attempt to test the following hypotheses:

1. There is an identifiable and significant difference between the areas in which services are concentrated for the nurses who are employed by Boards of Education and for the nurses who render service to the schools as a part of a generalized public health nursing service.
2. There is an identifiable and significant difference in the nurse-school and the nurse-pupil ratios for the nurses employed by Boards of Education and Departments of Health.
3. There is an identifiable difference between the areas of service which the nurses perceive as important and the areas in which the services are concentrated.
4. There is an identifiable difference in the activities of the nurses who have received special preparation in public health nursing and school

nursing and the nurses without special preparation.

4. Limitations of the Study

The sample.-- Within the 36 counties in Oregon, there are a total of 599 school districts. There are a total of 1,379 elementary and secondary schools. There is a total school population of 440,812 pupils. (32: 144)

This study is limited to the investigation of the responses of 93 nurses who serve over 600 schools and approximately 200,000 pupils in 29 of the 36 counties in Oregon. The employing agency--Boards of Education, Departments of Health, or voluntary agencies--does not pose a limitation since one of the purposes of the study was directed toward whether or not the scope of the activities for the nurses was influenced by the particular framework within which they served. Services rendered on a full time or part time basis, or based upon priority of visits are likewise not considered limitations since the purpose of the study is not directed primarily toward the allocation of time.

The methodology.-- This study is further limited to responses of nurses in the sample to a questionnaire which was submitted by mail to the group. While the questionnaire is a major instrument for data gathering in descriptive survey studies and is used to range widely over a field of inquiry, the responses are often influenced by

its length, its form, and the time involved in completing it. (5: 182-188)

5. Assumptions

To provide a framework for the investigation of the activities of the homogeneous sample described above and an experimental design that is appropriate because of limitations imposed, it is necessary to make the following assumptions:

1. The scope of the activities of the nurses who work in the schools serves as a basis for determining the role and functions.
2. The health needs of the school-age children which are considered within the purview of the nurses' responsibilities are met to the extent that the nurses utilize their professional knowledge and skills and exercise their powers of judgment.
3. The purposes and scope of the modern health programs for schools are educational in nature and reflect the responsibility of the schools to protect, cultivate, and develop the health of the children and the communities which support them.
4. The purpose of school nursing remains the same, regardless of the educational framework within which the nurses function.
5. The responses to the questionnaire for the sample

of nurses selected for study are as honest and as objective as is humanly possible.

6. Justification for the Study

The health needs and problems of the school-age children.-- Bucher states: "Health is everybody's business, and everyone should strive for the best health program possible in his community, state, nation, and world." (6: 103) The school, as the social institution, may logically share leadership in any program which helps the community to discover the health needs of its families and to mobilize the resources of the community to meet them. The school is the logical place where certain health problems and needs peculiar to the school-age group may be detected and approached directly and constructively for solution.

Many problems are the natural outgrowths which stem from basic human needs common to all individuals--needs for love, acceptance, security, and recognition. Others pertain more specifically to health and may be important in forming the substance and material from which the school health programs may be planned.

Oberteuffer has pointed out the wholesome curiosity of school children and their need for understanding more about growth and development, nutrition, sex and family, and behavior. He has emphasized the needs of the children with handicaps:

"....some results of recent mass psychiatric

testing of school children indicate that possibly half of all children have real or incipient mental or nervous disturbances, many of which have been engendered by influences within the school itself. There are two million or more children with impaired hearing, a half-million or slightly less tuberculous children, a half-million with cardiac limitations, and 300,000 crippled children.... Probably as many as 70% or more have one or more carious teeth.... These handicapped children are to be found in every school in the land.... The school must receive them, teach them, help them grow and develop.... These children deserve every protection against influences which might make the handicap worse just as children free of handicaps deserve protection against these influences in school which might produce disabilities." (28: 25)

Lesser has emphasized the problems of adolescents which are particularly pertinent to the health programs in secondary schools. He has stressed the importance of devoting more time to the adolescent problems of growing up and seeking independence in the complex society. Teenagers are apt to look elsewhere than to their own parents for guidance; therefore, the schools through their counselors and others often have an opportunity to be helpful to them. (19: 14)

Other needs, common to all school ages, center around prevention of accidents and a safe school environment; protection against communicable disease; adequate medical and dental care; and rest and relaxation.

The need for coordinated school health programs.-- The procedures most frequently used for appraising the health needs of the school children are the health examinations

by physicians and dentists, daily health observations by the classroom teachers, and periodic screening by teachers and nurses. These activities or responsibilities commonly fall into the area known as health services. School health services also make provisions for referring suspected or known defects to the attention of parents or health personnel and the necessary follow through services for correction or prevention of further limiting defects.

Qualified nurses working in the schools can help the schools to appraise and meet the health needs of the children. They occupy a strategic position whereby they can render service to both the school and the community at large. Actually they are a vital link between the school and the community, since for many families they are the only school workers who visit the homes. Appraisal of the homes from an emotional, social, and physical point of view often provides valuable information for school personnel regarding factors which might influence the overall plan for health services.

Specific responsibilities and activities for nurses are related to the type of administrative plan for health services. All need to be coordinated with and supplemented by other members of the school and community if the best interests of the children are to be served. These responsibilities and activities need to be clearly defined and understood not only by the nurses, but teachers, parents,

children, and health personnel associated with the school program. (18: 10-18)

The need for policies.-- The National Committee on School Health Policies has stated:

"Every school has health policies. Written or unwritten, consistent or inconsistent, in or out of tune and touch with best informed professional opinion, these policies affect the present and future welfare of all school personnel.... If the school is to make the greatest possible contribution to continuing health and welfare of its pupils throughout their whole lifetime, it should formulate and apply health policies consonant with the best thought and practices in this field." (22: 1)

Educators, medical, dental, and health authorities have jointly formulated accepted principles and policies which define the responsibilities and functions for all persons concerned with school health services. However, it is important that there be written policies locally developed which define the health responsibilities of the various schools. The Joint Committee on Health Problems has pointed out that these local policies should indicate specifically the nature of the responsibilities delegated to nurses in the schools and should have the support of the local health and medical authorities. (18: 13-14)

In Oregon, the guiding principles and the established state, county, and local level policies and regulations have been outlined in a joint publication of the State Department of Education and the State Board of Health, Health Service for the School-Age Child in Oregon, 1958. X

Emphasis is placed upon the role of the nurse in assisting teachers with screening procedures, observations, conferences and referrals, and the control of communicable diseases. However, it is recognized that limitations necessitate the development of programs which are realistic in terms of local facilities and situations and in many instances only limited services can be provided. (31: 12-35)

The need for research.-- In 1958 the Committee on Research, School Health Section, American Public Health Association, expressed the feeling that changing perspectives in school health programs had altered the research needs, heightening the potential of some problems and reducing the value of others. Among problems listed for provocation and motivation of researchers were those relating to the (1) status of the professional preparation of nurses for the special roles they assume in school healthservices; (2) the role of the nurses in the school health programs; the productivity of their activities; (3) the extent to which the health needs of pupils are being met by the home, school, and community. (8: 1795-1796)

Grossman has pointed out the need for an analysis of the actual work of practitioners in order to determine what they must know and be able to do. He has expressed the belief that recurring evidence of the gaps existing between theoretical "best practice" and actual practices as they exist among professional workers has lead to need

for research in re-evaluating and re-defining present training requirements. (15: 2-3) The World Health Organization has also recommended further study on the precise preparation required of public health nurses in serving the school-age children. (12: 35)

Poe and Bland have pointed out the need for further analysis of nursing activities, for time studies to ascertain the amount of time devoted to selected activities, and educational preparation for school nurses.

Sirnie and Bech have recommended that further study be made in reference to the nature and extent of administrative policies and school board regulations of the health service programs in Oregon schools, the follow-up phase of health services, and the use of the health record card. (37: 96; 3: 39)

Therefore, in light of the numerous health needs and problems of school-age children; the necessity for coordinated school health programs with health services to assist the youth in solving their health problems; the exigency for written policies which clearly define the nurses' responsibilities in promoting and maintaining the health of the school pupils; the need for research in school health programs and the activities of the health personnel, this study is justified. Knowledge of how the school nurses function in the state of Oregon will shed light upon how the schools, as community institutions, are

attempting to meet the health needs of the Oregon youth. In addition, a study of the activities of the school nurses will provide information that may serve as a guide to nurses who participate in the planning of school health programs.

7. Definition of Terms

In this study the health terminology and terms specific for the report are defined as follows: (6: 86; 17: 6; 36: 11)

Board of education.-- the legal administrative authority created by Oregon law and responsible for the educational program in each school district.

Department of health.-- official agency vested with authority to render on-the-spot, direct health service in six fundamental areas to a local governmental jurisdiction and the people it includes.

Follow-up.-- the health, medical, or dental service rendered for the correction, remedy, or modification of defects in order that pupils may participate to their optimum capacity in their educational experiences.

Health appraisal.-- that phase of school health service which seeks through a cooperative process to assess and evaluate the physical, mental, emotional, and social health status of pupils and school personnel. This phase of service utilizes such media as health histories, teachers' and nurses' observations, screening tests, and medical, dental, and psychological examinations. The appraisal by nurses and teachers is not to be interpreted

to include definite diagnosis of medical conditions.

Health counseling.-- the procedures by which nurses, teachers, medical and guidance personnel interpret to pupils and parents the nature and significance of health problems and guide them in formulating plans for action.

Health education.-- the process of planning and executing learning experiences for the purpose of promoting knowledge and favorable attitudes and conduct relating to individual and group health.

Health inspection.-- those formal and informal procedures employed by teachers and nurses in attempting to discover conditions indicating the need for referral of children for medical, dental, or other specialized care.

Health observation.-- the continuous alert consideration by parents, teachers, nurses, medical authorities, and other personnel of all aspects of the appearance and behavior of children that might indicate their need for professional health services.

Health protection and safety or healthful school living.-- a term which designates the provision of a safe and healthy environment and the organization of a healthful school day with protection from accidents or illnesses.

Referrals.-- the process whereby attention of parents or medical personnel is directed toward suspected symptoms or defects of pupils. Referrals are made in form of written requests and are initiated by one of the professional

members of the health team.

School health program.-- the school procedures that contribute to understanding, maintaining, and improving the health of the pupils. These procedures include health services, health education, and healthful school living.

School health services.-- the school procedures which are established to (1) appraise the health status of pupils and school personnel; (2) counsel pupils, parents and others involved regarding specific findings of the appraisal; (3) encourage the correction of defects; (4) assist with the planning for health care and education of disabled children; (5) help prevent and control disease; (6) provide emergency care for the ill or injured.

Screening tests.-- the preliminary evaluation of vision, hearing and other functions and conditions, administered by teachers or nurses for the purpose of directing attention to children needing further examination and diagnosis by qualified specialists.

Activity.-- the performance of a single act such as a visual rescreening.

Function.-- a broad area of responsibility composed of many activities pertaining to a position.

Liason services.-- those activities, visitations, and contacts which are necessary for coordination of the nurse's program within the total school health programs.

School nurse.-- the term used to describe the registered

professional nurse who gives service to the schools.

8. The Design for the Study

This study was planned as a descriptive survey to focus attention on the health needs of a selected group of school-age children and to ascertain the current trends and practices that have been directed toward meeting these needs. It has not delved into causal factors. Rather it has attempted to serve as a reconnaissance for presenting certain facts concerning the nature and status of the group of individuals (the nurses in the schools) who have been involved in meeting the health needs of school-age children and who have provided normative standards based on what is prevalent and what common practice does.

The four phases included in the procedure of the study may be described as follows:

1st phase: definition and delimitation of a problem; compilation of areas of functions and a list of school nurse activities. This was accomplished by the following procedure:

- a. Documentary analysis
- b. Related literature
- c. Personal interviews
- d. Observation

2nd phase: construction and validation of a questionnaire. This was accomplished by:

- a. Construction of a 145 item questionnaire
- b. Submission of questionnaire to a selected group of school and public health nurses for critical examination
- c. Submission of the final draft of 125 items to a group as a pilot study

3rd phase: procurement of data. This was accomplished by the following procedure:

- a. Selection of a sample
- b. Submission of questionnaire
- c. Analysis of data

4th phase: written report of findings, which includes:

- a. Inferences
- b. Conclusions
- c. Recommendations

Construction of the tool for collecting the data.-- A list of activities which nurses in school health programs may perform was compiled and classified under broad functional areas. The activities were selected on the basis of information obtained from interviews with selected school nurses in varying geographic areas of the state and the findings in the literature which related to the practices of school nurses.

From the list, a 125 item questionnaire was constructed and categorized into the seven broad areas of functions described by the School Nurses Branch of the American Nurses' Association.

Twenty specific activities were selected from the seven broad areas of functions and assembled for qualitative ratings as to the nurses' perceptions of importance. It was anticipated that the nurses' perceptions of the importance of certain activities might possibly deviate from the actual performance of the activities and thus shed light upon whether what they did was what they believed to be important.

The final draft of the questionnaire was arranged in the following form: (Appendix A)

- PART I. 13 questions relating to general information of the job situation and to personal and professional qualifications of the nurses;
- PART II. 125 school nursing activities, listed under seven broad areas of functions, to be checked for frequency of performance;
- PART III. 20 selected activities, to be ranked as to nurse's perception of importance.

Selection of the sample.-- The population chosen for participation in the study was the group of nurses who serve the schools either as members of the school personnel or as individuals in generalized community health programs.

In order to obtain a sample from the population, it was necessary to utilize a double sampling technique. (13: 10-20; 31-34)

From the files of the Oregon State Board of Nursing the names and addresses of 73 nurses, classified as school nurses, and 171 nurses, classified as staff public health nurses, were obtained. A sub-sample was then selected on the basis of limitation to nurses serving elementary and secondary schools, either public or parochial, and who were willing to participate in the study. A final sample of 113 names was completed.

Of the 113 questionnaires mailed to the sample group, 101 were returned. Of the 101 returned, 7 were not used because the information was returned after the dead line date or the data were not complete enough for analysis. 4 of the questionnaires imparted special findings which are reported in a separate category following the analysis of the major group. 89 of the responses were analyzed for the body of this report.

Analysis of the data.-- For Part I and Part II analysis of the responses was made on the basis of frequency from which percentages were calculated. Percentages were based on the total number of responses for each activity. For example, "zero" was used to indicate a value; therefore, it was used in calculating the percentages. If an activity was not checked, it was omitted. (35: 110; 38: 27-30)

The responses were also examined on the basis of the modal value. This examination provided descriptive information regarding salary, marital status, educational background, and professional qualifications. (10: 24-25)

Total responses for the broad areas of functions were compared for the nurses employed by Boards of Education and nurses employed by Departments of Health. Contingency tables were constructed and the frequencies were tested for significant differences by the Chi-Square test of independence. Critical values were established at the .01 level of confidence. (10: 148-152)

For Part III mean scores were calculated for the values of the nurses' perceptions of the importance of selected activities. (35: 161) The mean scores as to value of an activity were then compared with whether or not the nurses performed the activity.

9. Summary

From a broad problem of increased school enrollment in the elementary and secondary schools in Oregon and the attempts within the school health program to meet the health needs identified for the particular group of school-age children, a more limited problem was identified. What do the school nurses do in the school health programs? Under what administrative structures do they function? Do varying administrative structures influence the scope of their activities?

A questionnaire, compiled from various lists of activities which nurses in school health programs may perform, and categorized into 7 broad areas of functions, was circulated to a sample group of 113 nurses who serve the schools. The responses were analyzed for 93 nurses who serve over 600 elementary and secondary, public and parochial schools in 29 counties of the state of Oregon.

Analysis of the responses provided a basis for determining the scope of the nurses' activities, the areas in which their services were concentrated, and the variations in the programs within the different administrative structures. Twenty selected activities from the seven broad areas of functions were checked as to the nurse's perceptions of importance, and these responses provided a basis for determining whether or not nurses actually performed the activities which they perceived as having importance.

The overall picture, derived from the responses made as to the performance of the activities, the perceptions of importance of selected activities, and the comments made by the respondents provided a basis for determination of the role of the nurses within the school health programs of the state.

10. Overview of Thesis

This study is organized into four chapters as follows:

Chapter I presents in section 1-3 the purpose of the study and the definition of the problem. Sections 4-6

present the limitations, assumptions, and justification for the study. Sections 7-8 define the terminology to be used throughout the report, and describe the design for the study, the procedure, and tools to be used to obtain the data.

Chapter II consists of a review of related studies and literature. The first four sections of the chapter are devoted to a brief history of school nursing in the United States and the state of Oregon. In the fifth section nine studies relating to the work of nurses in the schools are reviewed. In the sixth section eight publications, relating to school health programs and the functions, standards, and qualifications of nurses who work in the programs, are summarized.

Chapter III reports and analyzes the data. The first four sections explain methods used in planning the study and constructing and administering the questionnaire. Sections 5-11 present the detailed analysis of the data obtained.

Chapter IV consists of three sections: (1) a summary of the findings and answers to questions raised in Chapter I; (2) a list of conclusions which resulted from the findings; and (3) recommendations made for further study.

The Appendix contains form letters relevant to carrying out the study; a sample of the data collecting device;

a detailed breakdown of responses of nurses to questions regarding the immediate work situation, and educational background; and tables presenting the responses to items in Part II of the questionnaire.

CHAPTER II

REVIEW OF RELATED STUDIES AND LITERATURE

Within the last 75 years, the changing pattern of health needs throughout the nation has been reflected in the changing pattern of school health programs. The first efforts directed toward developing a program in the schools dates back to 1894 in Boston, where attention was given to improving the health of the school children through the control of communicable and nuisance diseases. Some years later, the trend changed to that of medical inspection and mass medical examination, with the schools taking a major responsibility for finding health problems and remedy for the defects. Today's point of view embraces the philosophy that the children belong to their parents, who have the primary responsibility for their health. The health efforts of the schools, health departments, and other agencies should be conducted to help parents recognize and assume their responsibilities.

The activities of nurses in the schools have likewise reflected the changes in the programs. Fortunately, the nurses' contributions to the health of school children have been recorded by three leaders in the field: Lina Rogers

Struthers, Mary Ella Chayer, and Marie Swanson. Some twenty years elapsed between the writings of these leaders; however, each of the leaders perceived the importance of the nurses' work and the educational potentialities which existed. Each recognized and placed emphasis upon a close relationship between the school, home, and community.

1. Early History to 1930

In 1902 Lillian Wald of the Henry Street Settlement Nursing Service in New York City assigned Lina Rogers Struthers, one of the Settlement's visiting nurses, to four elementary schools in New York City. Lina Rogers Struthers in The School Nurse, published in 1917, reviewed her work in the schools for over a decade. She described her duty as follows:

"....to treat the children with minor diseases as far as possible in the schools, to visit the homes to interest the parents in their further care and to demonstrate any necessary treatment." (41: 17)

Struthers further described the administrative procedures whereby the child suspected by the school doctor of having a communicable disease, was sent home by school authorities with a card excluding him from classes. Since school attendance laws were less well defined than they are today, the use of the exclusion card was of little value. Nurses often found that the child either played with his school companions as soon as school was out or remained at home far longer than was necessary because his services

were needed in the home to care for smaller children while the economically pressured parents sought gainful employment.

Struthers, in reviewing the scope of her activities, stated:

"An hour was devoted daily in each school to treatment of minor contagious diseases such as ringworm, impetigo, scabies, and such conditions as inflamed eyes, discharging ears, to dressing sores, cuts and infected wounds, and the inculcation of the oft-repeated lesson of personal cleanliness in the constant fight against pediculosis." (41: 19)

Although her duties followed a prescribed routine, the first school nurse did not question as to where to place the emphasis in her work. Her emphasis was upon health education. She stated: "The highest objective of all efforts is to teach children to be healthy and how to stay healthy." (41: 40) Struthers recognized that there was a difference of opinion on the administrative jurisdiction of school health service. To most school administrators, school health supervision, or so called medical inspection, by and large meant little more than the detection and exclusion of children with communicable diseases. Struthers expressed a firm belief that health supervision of schools and school children should be largely preventive medicine broadened to include all that affected their physical, mental, or moral development. Also, that through the teacher, the nurse, the dental and medical inspector, the child should be taught laws of health, and prepared to

leave school with a practical foundation for healthful living.

In addition, the first school nurse displayed considerable vision over and beyond her attitude toward nursing. Her views encompassed community aspects, and envisioned the school as the social center of the neighborhood, the nurse as a liaison between the school and the home and the community agencies. She felt that the nurse could be instrumental in bringing about case conferences, in pointing out areas where remedial assistance was indicated, in following through on medical and dental findings, and in concentrating efforts on better nutrition and a healthier school environment. Through her "Little Mother Classes," she demonstrated that the nurse could be a teacher in both the formal and informal sense.

In 1918, the National Commission on Reorganization of Secondary Education published the famous Seven Cardinal Principles of Education. Since health was listed foremost, modern school health education received considerable impetus. In the 1920's the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association began the program for increasing understanding and cooperation among the two professions.

2. History from 1930 to 1950

By 1930 the social and economic climate of the United States had changed considerably, and the nation, engulfed

in the throes of a severe depression, had altered its social and educational philosophy to a great degree. There was a greater need for public assistance and some provision for the vast numbers of school children who were required to attend school--although many were ill fed and ill clothed.

Mary Ella Chayer in School Nursing, reported that the work of the nurses in the schools was influenced by the existing educational philosophies and sociological and economic factors which, in turn, had their impact upon the philosophies. (7: 15-36)

During the 1930's the emphasis of school nursing was focused more on "the whole child," with a result in shifting the functions more toward meeting emergencies in the school situation and broadening the concept of a health program to include mental health, plans for the physically handicapped, immunizations, and pre-entrance physical examinations. Some school health personnel questioned whether the health examinations should be given at school.

Between 1930 and 1950, considerable information was reported by national groups who had become active in the health field. The 1932 report of the third White House Conference on Child Health and Protection, The Administration of the School Health Program, emphasized that every member of the school staff should be concerned with the attainment of objectives of health education. (46: 14)

The American Child Health Association, active in all phases of child health work, in 1934 reported the findings

of the School Health Study, which was begun in 1926. The purpose of this study was an evaluation of the school health programs as carried on in the major cities. In the fifth phase of this study an attempt was made to appraise the effectiveness of school health services. Attention was also directed to the extent of understanding each individual had for his job in the school health programs--particularly the nurse and the teacher. (1: 5, 81)

The study indicated that the extent of information available to the teacher and nurse regarding the health status of the child was inadequate and that poor communication with the parents was one contributing cause.

In the 1940's the National Conference for Cooperation in Health Education, an organization comprised of more than forty national agencies concerned with school health, concentrated their efforts upon defining the functions of the school administrator, physician, and nurse in the school health programs and the education needed to perform these functions. (23: 28-45)

The report of the conferences held in 1944 stressed the importance of the coordinated efforts of many individuals in the execution of effective school health programs. It also emphasized the power of the combination of united forces of public health and education and the necessity for a clear definition of individual functions and an understanding of the dove-tailing of the activities of various

professional workers.

In 1942, Dorothy Nyswander in Solving School Health Problems, reported the findings of a joint study carried out by the New York City Board of Education and the Department of Health, in the Astoria District in New York. This investigation and appraisal of the overall health services pointed up the value of the teacher in case findings and the effectiveness of the teacher-nurse conferences. It emphasized the importance of the follow-up phase of a health problem, and clearly exemplified the way in which educators and the medical people can work effectively together to disseminate pertinent information regarding the health status of the child by using a special record card.

The study caused questions to be raised about the annual health examination, given by the school, the overlap in functions of many of the personnel, and the preparation of the school nurses for many of the phases which their work included. (27: 293-309)

3. 1950 to Present Day

Prior to mid-century there had been an increase in the number of school personnel allied to the health field. Nurses had begun to consider their own preparation for their work in meeting the needs of school children, who in many areas, were now benefitting from an expanding school staff which might include guidance workers, psychologists, nutritionists, dentists, physical education and recreation

specialists.

In 1953, Marie Swanson in School Nursing in the Community Program, reported the importance of the school nurse's contribution to the community setting. Swanson regarded the nurse as a member of the professional team of workers and emphasized the fact that the cooperation of parents and the family physician were also of vital importance to the health and development of school children. She pointed out that individuals who are concerned with the schools have many varied conceptions about the functions and responsibilities of a nurse in the school.

Swanson listed a number of activities which nurses in the schools may perform and placed them in four categories: (1) activities related to examinations and tests; (2) activities related to control of the environment; (3) activities related to follow through; (4) activities related to supervision. She recognized that the nurse's activities varied with the situation and the problems confronting them; she stated:

"No complete agreement exists among authorities on school health services--school administrators, public health and public health nursing leaders --as to just what activities a nurse's services in a school should include. In certain well defined areas, however, the special value of her services is widely recognized." (42: 121)

4. History in the State of Oregon

In the state of Oregon, there has been little formal history compiled of the activities of nurses in the schools. The records maintained by the Portland City Bureau of Health mention that as early as 1902 the city had employed one nurse to work in the city schools. In 1908 a nurse was employed to do inspections in the schools. In 1902 and 1915 the Oregon Tuberculosis and Health Association took over the sale of Christmas seals and employed a nurse to work in the schools. By 1924 the association was paying the salaries for four additional nurses in a demonstration project of what nurses could do in a school program. For the first time nurses were requested to have public health certificate. (45)

By 1925 the city school district had assumed the responsibility for the salaries of 11 nurses. A gentleman's agreement was worked out between the Board of Education and the City of Portland whereby the Board of Education agreed to pay a percent of all salaries of public health nurses who worked in the city schools. The city provided direction and supervision of all nursing functions. Equal public health nursing was given to all parochial schools. (45)

During the 1930's, the program was expanded to include the high schools. During the latter part of the 1940's and the early part of the 1950's an extensive immunization program was undertaken. Specialized services were rendered to both elementary and secondary schools in the city until 1952,

when the program became a year round public health nursing service.

Records of the Visiting Nurse Association revealed that in 1904 nurses were participating in a "Mother's Club" in a public school. In 1907 one VNA nurse was assigned specifically to serve the schools; the following year other members of the staff expanded their services to include the schools when they were "not otherwise engaged." (43: 70-90; Vol. 1908)

Between 1914 and 1924, the records indicate that the agency's nurses were working cooperatively with school groups and were emphasizing case finding and follow-up care. The agency was also furnishing a nurse on a contract basis for the Mills Open Air School, established by the city school board to provide education for children who had been exposed to tuberculosis. Nurses were also spending time in demonstration of school nursing and in making weekly inspections in a parochial school. (43: 1, 49, 101-102; Vol. 1919-1924)

The history for the early years indicates that much of the nurses' work was directed toward the control of communicable disease. Home visits were made not only to collect cultures and specimens but also to give instructions for the care of the sick and the overall health appraisal for the school children. In the schools, initial visual screening, weighing and measuring, and later, audiometer testing were the responsibilities of the nurses. Health teaching was given on an informal basis; however, the nurses assisted teachers

whenever possible as resource persons.

For other areas in the state, one of the most detailed accounts of the nurses' work is given in the report of the Commonwealth Fund Child Health Demonstration in Marion county, 1925-1929. In Children of the Covered Wagon, Estella Warner described the experimental project designed to develop a well-planned, well-balanced health department in Marion county. Seven nurses, devoted approximately seven hours per week to the schools, and were particularly active in the areas of health appraisal and liaison between the home, school and community. (44: 15-19; 64-90) Following the demonstration program, progress in the rural areas was noted. At the present time, advancement has been reported in some rural communities which have joined together to develop school health programs.

In the state of Oregon, the present school health programs have been outgrowths of relatively simple beginnings.

5. Review of Related Studies

In 1953 the Bureau of Educational Research, California State Department of Education conducted a statewide questionnaire survey of the preparation, duties and responsibilities of nurses serving California public schools. The population surveyed included school nurses, supervising nurses, directors of schools of nursing, nurses employed by city and county health departments and assigned responsibilities in the

schools, and nurses employed by school departments but without specific identity as to the positions held. The first part of the study dealt with the nurses' professional preparation and included such items as: employing agency, to whom they were administratively responsible, salary schedules, and degrees and credentials held. The findings revealed that 45.3% of the sample surveyed (1,224) held Bachelor's degrees, 4.2% held Master's degrees, and 73.5% held the regular Health and Development Credential.

In the second part of the study 77 duties of school nurses were rated according to the actual responsibilities which the nurses had for performance and/or recommendations made to indicate the degree of responsibility which the nurses believed they should have for performance. Findings revealed that a considerable difference existed between the ranking of items for which nurses had some responsibility and those for which they believed they should have some responsibility.

The third phase of the study related to subjects in which school nurses had education above the high school level and subject areas which they recommended for individuals who plan to become school nurses. (16: 2-10)

In 1953 in the School of Education, University of California, Jerome Grossman conducted a study of a selected group of nurses with public health nurse certificates who served public schools in three counties in California. The purpose of his study was to explore the possibility that an

investigation and analysis of the on-the-job perceptions of problems and responsibilities would result in data of significance in planning professional educational experiences in the field of school nursing. Using a random sampling technique, the researcher selected 65 nurses, employed either by health departments or school departments, and by the interview method collected data which were analyzed and categorized into five distinct sets: (1) responsibilities in terms of broad areas of high priority; (2) problem areas; (3) areas of training considered most valuable; (4) scored responses to a check list of 29 activities; (5) summary of in-service education activities as reported for the year in which the study was conducted.

Fourteen categories were identified as areas of activity held in high priority in the nurses' perceptions of their jobs. As might have been expected, the perceptions varied from individual to individual. The ultimate goals appeared to be rather vague, generalized and somewhat stereotyped concepts which dealt with the "health of the child and the community." However, the responsibilities which dominated the nurses' perceptions had to do with finding and correcting defects among the school children. Other specific areas appeared to find their justification in relation to this one. The areas of health of the staff, environmental sanitation, and safety occupied a relatively minor place in the nurses' perception of responsibilities, although these three areas

are given important emphasis elsewhere in the nursing literature.

Eleven problem areas were identified, and these related to other individuals and to lack of physical and material elements. Findings revealed that the majority of the problems centered in the area of relations with other individuals. There was much evidence that difficulties stemmed from status differences.

Findings also pointed out that while nurses in the sample demonstrated a comprehensive intellectual knowledge of the functions for which they are ideally responsible, there is a wide gap between what they think they should be doing and what they actually do. At the root of most of the problems perceived were the feelings of the nurses that they were blocked from their goals by lack of support, acceptance, interest or concern on the part of the other school staff members. Thus much of the nurses' intellectual and technical know-how goes for naught while they are faced with the need for other skills and competencies. (15: 146-148) Further study was recommended for samples drawn from other populations, and in the area of role perceptions, curriculum improvement, and correlation of pre-service education for public health and education for workers in areas relating to health. (15: 153-154)

In 1955 McFadden and associates reported the results of a study conducted by a committee under the sponsorship

of the Bureau of Public Health Nursing, New York City Department of Health. The purpose was to determine how seriously the burden of clerical and other routine details affected the way nurses work in the schools.

A representative sample of 115 schools--public elementary and junior high and parochial--in 30 health districts in New York was selected, and a time log, following the pattern of the log used in the Yale Public Health Personnel Research Project, was kept for a period of normal school days by public health nurses who served the schools. The time log was accompanied by an activity list of 21 broad categories and 56 specified items which were classified according to whether they were nursing or non-nursing activities.

Findings revealed that four of the twenty-one could be classified as non-nursing activities which could be assigned to ancillary help. Findings also pointed out that nurses spent about 73% of their time in nursing activities and 25% in non-nursing ones. In larger schools more time was spent in daily inspections and first aid and less time in conferences and follow-up. A reverse pattern was true in smaller schools.

Recommendations were that a qualitative review of all nursing activities be made to determine whether more activities might be shared with other school personnel or assigned to ancillary help. Further study was recommended in the area of case finding and follow-up procedures, the optimum pro-

portion of nursing time needed for these procedures, and the knowledge and skills needed by public health nurses in order to function more effectively in school health programs.

(20: 937-943)

In 1956, Hester Beth Bland, in the School of Health, Physical Education, and Recreation, Indiana University, conducted a study of 172 nurses who served public schools in Indiana and were employed by Boards of Education. The purpose of the study was (1) to determine and evaluate the role of the nurses in the schools; (2) to improve nursing service to schools and communities; (3) to assist in the establishment of licensure requirements compatible with good school nursing.

The nurses participating in the study were interviewed and asked to rate 141 activities according to frequency, difficulty, and appropriateness. Activities in seven categories were arranged in rank order. Selected items were analyzed to determine whether or not education, experience, and in-service programs influenced the nurses' opinions.

(4: 4-5)

Conclusions were that nurses performed a variety of services and considerable uniformity in performance existed. In general, there were few differences in opinions of nurses with different types of licenses. (4: 135)

Bland recommended that a time study be conducted to ascertain the amount of time nurses devoted to selected

activities; that schools of nursing and licensure bureaus examine their licensure requirements in light of the findings of the study. (4: 136-137)

In 1957, Elizabeth Stobo, Teachers' College, Columbia University, under the auspices of the National League for Nursing, conducted a study to determine whether the theory on the functions of the nurses' work in the schools could be substantiated by existing practices. It was her belief that in order for the education and service aspects of the nurse's job to be adequately appraised, the functions of the nurse needed to be more clearly defined and related to the health objectives of the school. Practices needed to be reviewed to find out whether or not stated functions which were carried out through practices were meeting the school's health objectives. (40: 2-4)

A list of functions, based on the guide of the Joint Committee on Health Problems in Education, was revised and rearranged. Obligations, considered to be health objectives, and outlined by the American Association of School Administrators, were reviewed and rearranged in the order of health appraisal, health counseling, and provision for emergency care. Each obligation was fulfilled by one or more of the functions. Twenty-two practices, demonstrating the functions, were used as criteria to indicate whether or not the nurses can and do fulfill their functions and help the schools meet their objectives for health.

The findings indicated that the theory or functions could be substantiated by actual practices and that the nurses' contributions to the school health programs were enhanced when their role was better understood by the school personnel.

Recommendations were that additional study is needed to determine to what extent practices similar to the ones described are being carried out in the various schools, and thus the degree to which the schools' objectives in health are being met. She stated: (40: 61)

"Although the study has emphasized the nurse's contribution to the health of the children, it is recognized that she is only one member of the team. The school's objectives can best be met by all members of the school staff working together. As the nurse carries out her own functions in the field of health, she helps other members of the school staff to have a better understanding of the ways by which they too may contribute to the health of the students."

In 1957, Nancy Poe in School of Education, Boston University, conducted a study of the functions of the school nurses in four selected states, Ohio, Washington, Michigan, and Illinois. Poe devised ten categories of functions and with a 132 item rating scale analyzed the responses of 610 nurses serving the schools. Functions were rated according to frequency, importance, and time spent for the various activities. (30: 40) By means of evaluating and defining functions, Poe anticipated that a basis for curriculum construction might be formed as well as a guide for the nurses

in the schools in achieving more useful goals in their work.

Overall results reflected the influence of the time factor upon the frequency of performance of various activities and stressed the need for greater coordination in the school and community health program. Poe had this to say:

"The nurse in the school wants cooperation and coordination in the work that she performs, but feels inadequate or lacks time to do many of the functions which would help secure her objectives. Nurses agree to a large number of functions that should be performed, but sometimes fail to observe a total situation and its implications." (30: 204)

Other findings reflected the variance of functions and the perceptions of importance of the functions for nurses employed by Boards of Education and those who served the schools as a part of a community program. A larger number of functions were performed and considered important by nurses employed by Boards of Education than by other agencies. Among the groups, there was greatest agreement in the activities categorized as "follow-up" and smallest agreement in the activities categorized as "healthful school living."
(30: 209)

A number of nurses in the study expressed a desire for more extensive preparation in counseling and guidance and allied sciences as well as more experience in public health and school nursing.

Poe recommended further study for administrators and nurses to clarify the nurses' role and for evaluation and possible curriculum revision for schools of nursing.

In 1958, Elizabeth Neilson and Leslie W. Irwin, State Teachers College, Lowell, Massachusetts and Boston University, conducted an analytical study of school health service practices in the United States. They selected as their random stratified sample school administrators of city schools in 250 cities of three population groupings. They justified the need for the study as follows:

"It is generally recognized that the school health program is an essential unit of the total education program, but it is surprising how little is known of what is being done in this area. According to the outstanding leaders, there are changes in the field, there are changes in the health problems of the school-age child, and consequently school health procedures need to be adopted to these changing conditions." (26: 417)

An inquiry form, with 61 categories and 620 options relating to school practices in the health programs was submitted to the school administrators in the sample group.

In all three groups studied, it was found from the responses that school nurses occupied key positions in the health programs but the extent of their services varied with the different administrative structures. Certain common weaknesses within all programs pointed up a lack of coordination of health services, lack of adequately trained personnel to effect the programs, insufficient number of planned teacher-nurse and parent conferences, and inadequate provision for special education of all types. (26: 457) There was dependable evidence that communities where school health services are under the control of the Board of Education have

a more complete program to meet the needs of the child.
(26: 458)

In 1955, Jack Karl Bech, in the School of Education, Oregon State College, conducted a study to analyze the administration of the health examinations program in Oregon public schools. (3: 2-3) 125 elementary and secondary school principals completed a questionnaire concerning the health examinations--to whom they were given, how they were financed, how they were administered, the screening program in health appraisal, and the follow-up program for recommendations made.

Bech found that while the schools had made much improvement in their programs within the last few years, many were still unable to provide the recommended number of health examinations for pupils during their 12 school years, and for many schools the follow-up program for referrals was rather lax. 15% of the 125 schools in the study did not record the results of referrals on the Oregon school Health Record Card; when recording was done, the responsibility was shared equally by the teacher and the nurse.

Bech recommended that schools raise their goals for attaining more thorough health examinations for athletes and for making examinations available for students in the 4th and 12th grades. He recommended that intensive follow-up be made for the more severe defects and that whenever possible advantage be taken of nursing services. He stated:

"Schools should be urged by all means to take advantage of the school nurse when she is available. Her contact with parents is of immeasurable value in securing the correction of defects. She can do a fine job in the field of parental education." (3: 35-36)

In 1960, George J. Sirnio, School of Education, Oregon State College, conducted a study to evaluate the follow-up services for health referrals in school health services in selected Oregon counties. A survey questionnaire was submitted to classroom teachers in 143 schools in 4 counties, located geographically so that a representative picture of problems could be obtained.

Data regarding 4,392 health referrals were obtained and classified under two main headings: (1) type of referral and (2) role of individual making the referral. It was apparent from the data that many of the schools in Oregon are encountering problems in the health referral and follow-up programs. In many instances, poor communications and improper channeling of information contributed much to the problem; schools did not have data or information of any kind on what happened to 24.1% of the referrals. (37: 94)

The findings revealed that school health practices vary considerably from county to county; that schools were found to be lax in recording of follow-up data that were known; and in counties and schools where all health data, referrals and follow-up were kept up to date, the data were brought to the school and recorded by the nurses. The only instance in which the health records indicated the accurate status

of all referral and follow-up cases was found in one county where the ratio of public health nurses was 1: 5,000 population, the ratio nationally accepted as the minimum safe level for the provision of public health nursing service.

The findings indicated the need for further coordination of services involved with follow-up of health defects and for further pre-service and in-service education of teachers and public health nurses to improve this phase of the school health program. He recommended that further study be done in health screening, health referral, health follow-up, and maintenance and use of health records.

(37: 95-98)

6. A Synopsis of Other Related Publications

The Nurse in the School, a brief and concise report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, discusses the importance of the work of public health nurses in school health programs. Specific purposes of the bulletin are to provide suggestions for determining:

1. Ways for all health and teacher groups to work together to obtain better health service for children of school age and to utilize more effectively the nurse services available;
2. Working relationships of the nurse to health and education personnel and parents;

3. Contributions which the nurse may make to the health service, environmental health;
4. Ways in which these activities may be adapted and applied to different types of schools, i.e., elementary, secondary, college, rural, urban, public, private, and parochial. (18: 7)

Suggested ways to use the bulletin are listed for various groups involved in school health programs. Emphasis is placed upon the importance of administrative leadership and the need for clearly defined policies and responsibilities. The nurse is presented as an important member of the school health team with particular contributions to make to the school health program and to improving the health of children.

Eleven basic functions of school nurses are listed; each of these functions may be translated into specific activities of the nurses in the schools. Reference for adaptations to various types of schools are also suggested. (18: 29-32)

Health Appraisal of School Children, a report of the National Education Association and the American Medical Association describes the guide lines and standards set up for the health appraisal and health services for school children. Although the classroom teacher is described as being the key person in the health appraisal process, the work of the nurse in assisting the teacher with observations, morning health reviews, and screening tests is emphasized.

In addition, the nurse's role in parent teaching, as a liaison between home, school, and community, and in referral and follow-up service is pointed out. (17: 14-15)

The committee lists in detail procedures for health services to be used in schools with adequate and inadequate health service personnel. It also reviews screening tests and conditions which should be noted in health observations.

Suggested School Health Policies, a document compiled by the National Committee of School Health Policies of the National Conference for Cooperation in Health Education, provides a clear, comprehensive statement of specific school policies which directly or indirectly affect the health of pupils. Such policies are essential if the school is to make the greatest contribution to the continuing health and welfare of its pupils throughout their lifetime. (22: 1-6)

The report emphasizes the importance of securing information concerning the present and past physical, mental, and emotional health status of the pupils and the responsibility of all personnel concerned for cooperating to secure such information. It points out the need for qualified nurses with professional skill and judgment to work closely with teachers and keep open the channels for communication between the school, family, and community.

Although this document is addressed primarily to school administrators, the content provides a composite overview of optimum school health policies and the nurses' role as

members of groups concerned with the health of the school children.

The American School Health Association Committee of School Nurses formulated a guide setting up standards for school nursing. In "Recommended Policies and Practices for School Nursing", which appeared in the Journal of School Health, some of the general responsibilities of the school nurses in accordance with established administrative policies, are listed: (1) leadership and guidance in the development of a total school health program; (2) current practices in areas such as development and protection of the health of the school child; (3) health counseling and education for personnel, parents, pupils, and all concerned with the health of children; and (4) participation in coordination of the school program with the total health program of the school and community. Fourteen specific areas of nursing responsibilities for school health are given. Personal and educational qualifications are outlined and special preparation suggested for specific areas. (2: 390-395)

This guide provides a basis for understanding the broad scope of the nurses' activities and the quality and quantity of work which is accepted as ideal by school administrators and leaders in the field of school health.

Jeanne Richie, in "School Nursing: A Generalized or a Specialized Service," which appeared in the Journal of Public Health, discusses the opinions of a number of public health

nurses regarding the philosophy and the administration of school nursing programs. She points out the feeling of many public health nurses that nursing services should be generalized with each nurse giving public health nursing service on a family basis to a certain section of the community. (34: 1252)

Richie refers to the sharp increase in the number of nurses employed by boards of education within the last decade and the corresponding shortage of public health nurses which is likely to continue. She questions whether or not the time and services concentrated on the healthiest segment of the population (the school children) is justified in light of the more limited services available for infants and pre-school children. (34: 1253-1256)

Richie emphasizes that although nurses in the schools perform many and varying activities, there is evidence to indicate that much of their time is spent in non-nursing activities. She expresses the opinion that this, in part, results from school administrator's lack of familiarity with effective use of nurses and, in part, to a lack of coordination between the school and public health programs. She recommended that a study of public health and school nursing activities be carried out to determine which of the activities might be assigned to non-professional personnel and that combined services, family centered, be extended. (34: 1257-1258)

Functions and Qualifications for School Nurses, a report prepared by the committee on Functions, Standards, and Qualifications for Practice, School Nurses Branch of the Public Health Nurses Section of American Nurses' Association, outlines the best current practices for school nurses. This report reflects the thinking of over 1,300 school nurses representing 31 states and emphasizes the importance of nurses' knowing and understanding their role and being able to communicate it effectively to others. Functions are divided into eight broad areas and set up on the basis of recognition that such factors as school policy, preparation and experience of the nurses, pupil load, particular needs of pupils, and community services influence the scope of activities. Qualifications recommended encompass pre-service professional preparation, broad knowledge and understanding of total school programs with health factors involved, and ability to interpret and implement a school health program. (36: 2-10)

The Handbook for Health Instruction in Oregon Secondary Schools, issued in 1954 by the Oregon State Board of Education, clearly defines the purpose of health instruction in Oregon schools and places the responsibility of school health education on all who come in contact with school children. In this document and a similar one, issued in 1952 for the elementary schools, an overview for health instruction is presented. In accordance with the Oregon statutes, health

instruction must be provided for all pupils in the following areas; (1) personal hygiene; (2) community health and sanitation; (3) communicable disease; (4) nutrition; (5) mental health; (6) safety education; (7) choice and use of health services and health practices; (8) structure and functioning of the human body; (9) physical effects of exercise; and (10) effects of alcoholic beverages and narcotics on the human body. (29) In the secondary schools, one-sixth of each school day is to be allotted to health and physical education instruction and activities. (29: 1)

The report points out the importance of the health of the pupils to the educational program as follows:

"The health status of students should, to a major degree, determine the type of educational program in which they participate. Health examinations, teacher observation and inspection, and teacher-nurse screening form the foundation for discovering the health needs of students." (29: 3)

It also emphasizes the importance of helping school pupils to live most healthfully each day and to learn to meet changing situations in a healthful manner. Content for health instruction is organized and graded with specific units outlined and objectives established to promote good health habits and to give pupils a body of knowledge and information which is meaningful in terms of their everyday environment and experiences.

Although the document is addressed primarily to teachers, it serves as a basis for understanding the areas of health

instruction which are specified by Oregon law, the content planned for each grade level of pupils, and the utilization of the school nurses as resource persons for enriching health instruction and assisting the classroom teachers in presentation of specified materials.

Health Services for the School-Age Child in Oregon, a manual revised in 1958 by the State Department of Education and the Oregon State Board of Health, was designed especially for school and public health personnel and outlines the scope and procedure of the health services for pupils in Oregon schools. The responsibilities and relationships of the two legal state agencies are defined as follows: (31: 12)

"The State Department of Education and the State Board of Health recognize mutual interest and responsibility for health examinations of Oregon school children. Both agencies appreciate the ideals which motivate health examination programs. Both recognize that limitations necessitate the development of programs which are realistic in terms of local facilities and situations. Both agencies believe, however, that certain minimum services are essential and should be provided.

Oregon law provides that the State Board of Health shall have direct supervision of all matters pertaining to the preservation of the life and health of the people of the state. Oregon State Board of Education regulations also require that boards of directors of all school districts shall provide programs of health instruction and physical education for all elementary and high schools of the state. To achieve the purpose of these regulations, the Superintendent of Public Instruction is given the duty to prescribe for, with the advice of the State Board of Health, a program of health examinations of pupils."

The manual clearly defines specific areas in which nurses may function. The relationship between the teacher and the nurse is pointed out in the process of health screening, observation, general health supervision, and planning programs to meet the needs of certain children. Emphasis is placed upon the teacher-nurse conferences, which is a part of the screening procedure that serves as the basis from which the teacher and nurse plan for the health program, including health education for the group and for the individual. A teacher-nurse conference should be held at least once a year, and at this time, the health status of every pupil in the teacher's classroom is to be discussed and appraised. The teacher-nurse conference provides an opportunity for the following: (31: 22)

1. The nurse to assist the teacher with observations.
2. The teacher's observations to be evaluated.
3. The teacher to receive an interpretation of any medical findings and recommendations.
4. Teacher and nurse to learn about the special needs and problems of the pupil within and outside the school.
5. Each to learn about the progress and follow-up.
6. Both to agree on the next steps to be taken and by whom.

The manual suggests that teacher-nurse conferences be held before referrals for a child are made. The nurse must clearly understand the referrals and recommendations before she can assist with the follow-up.

Home visits are recommended, depending upon the allocation of the nurse's duties, and should encompass such factors as explanation of the need for medical care, demonstrations

of home care, and securing information which might be helpful in health guidance of the pupil. When the nurse is actually following a case, progress information should be shared between the teacher and the nurse.

7. Summary

The history, studies, and related literature reviewed in this chapter have been presented in order to show how school nursing has developed from a simple process to a complex program. Philosophy, organization and recommended practices for school health services on a national and state level have been pointed out.

The concern of leaders in education, health, and medicine for defining and determining the role and functions of the school nurses in a school health program have been expressed, and the recommended qualifications and functions have been outlined.

One trend that is of particular importance to this study is that the practices and activities of the nurses vary considerably from area to area and reflect the policies and administrative structures within which the nurses function. Consistent with the varying structures are the varying perceptions of school personnel and nurses, themselves, as to what is being done and what is perceived as should be done.

In the state of Oregon no specific study has been conducted to identify the varying activities which the school nurses perform and the specific role which they occupy as

a part of a public service program.

CHAPTER III

THE STUDY AND THE FINDINGS

1. The Scope of the Study

This study was planned as a descriptive survey to focus attention on the health needs, described in Chapter I, of a selected group of school-age children and to ascertain the current trends and practices that have been directed toward meeting these needs. (14: 548-634) The four phases included in the procedure of the study, detailed in Chapter I, are as follows:

1st phase: definition and delimitation of a problem;
compilation of areas of functions and a
list of school nurse activities;

2nd phase: construction and validation of a question-
naire;

3rd phase: procurement and analysis of data;

4th phase: written report of findings.

2. 1st phase: Compilation of Areas of Functions and Activities

A questionnaire was selected as the device by which quantitative data could be collected to answer the questions relative to the problem for study. A questionnaire would

also provide information which would reflect qualitative elements as to the nurses' perceptions of the importance of selected activities. Through the use of structured items, it was anticipated that highly objective data could be obtained regarding the nurses' activities without encroaching too extensively on the time of the respondents. Furthermore, a questionnaire could be administered by correspondence whereas personal interviews would have entailed a more involved and longer study. (35: 87-110)

Attention was directed, therefore, toward constructing a questionnaire, using a list of activities which nurses in school health programs perform, and toward classifying these activities under broad functional areas.

Three nurses who served schools in metropolitan and rural areas in different geographic locations of the state were selected for interview regarding their work in the schools. Selection was made on the basis of the types of schools and the divergent populations of the area with the anticipation that different population groups would reflect different health problems and, thus, influence the activities of the nurses. An interview guide was used as a basis for the discussions which were relative to the areas of service, the time involved in various activities, and the general scope of the programs. (Appendix A) Information obtained provided background material for compiling a list of nursing activities.

The literature was then searched and analyzed and a list of 145 nursing activities was compiled from information obtained from the three interviews and the finding in the literature. Activities selected were concurrent with the views expressed by the authorities in the field and reported in Chapter II: Marie Swanson (42: 121-141); National Conference for Cooperation in Health Education (23: 28-43); Joint Committee on Health Problems in Education (18: 29-39); California State Bureau of Educational Research (16: 5-12).

3. 2nd phase: Construction and Validation of a Questionnaire

Preliminary tryout and revision.-- The 145 selected activities were arranged under broad functional areas to be checked for frequency of performance. The material was then submitted for examination and refinement to four nurses who were selected on the basis of their past experience in public health nursing and school nursing. Since these nurses were not actively participating in school health programs at this time, they would not be participating in the study. Two of the nurses evaluated the material on an individual basis; two, worked as a team. From the suggestions made, the list was revised, reduced to 125 items, and categorized into the seven broad areas of functions described by the School Nurses Branch of the American Nurses' Association as follows: (36: 3-6)

- I. Functions Relating to the Administration of the School Health Program - 12 activities
- II. Functions Relating to the Nurse's Role as a Faculty Member - 15 activities
- III. Functions Relating to the Community - 14 activities
- IV. Functions Relating to Health Appraisal - 28 activities
- V. Functions Relating to Counseling and Guidance - 15 activities
- VI. Functions Relating to Health Education - 16 activities
- VII. Functions Relating to Health Protection and Safety - 25 activities

A scale for checking the frequency of performance of each activity was devised to permit each respondent to check an activity on the basis of the total school assignment. The range for the scale was as follows: (30: 28)

- 4 - continuously--performed daily or more often
- 3 - often--performed approximately weekly
- 2 - infrequently--performed approximately once a month
- 1 - seldom--performed once or twice a year
- 0 - not performed--an activity not performed

It was recognized that frequency is an inadequate although a valuable criterion. It was also accepted as self-evident that frequency could not be equated with importance. Activities performed infrequently might be very important

functions of the nurse; however, infrequent performance might result from such factors as the type of activity, the lack of time, or limitations imposed by the organizational structure. Nevertheless, since one of the questions raised in the study related to the areas in which the nurses' activities were concentrated, it appeared necessary to examine each activity as to how frequently it was or was not performed.

Twenty specific activities were selected from the seven broad areas and assembled for qualitative ratings as to the nurses' perception of importance. Selection of the activities was based upon the list used in the Grossman study (15: 22), the information gleaned from personal interviews with school nurses, and from reviews of related literature.

In the literature it has been repeatedly brought to light that the activities of the nurses in the schools are often not consistent with what they believe they should be performing. Therefore, it was anticipated that their perceptions of the importance of selected activities should be examined in accordance with the actual performance and should provide evidence as to whether or not they were actually carrying out the activities which they perceived as important.

A rating scale was devised whereby the respondents could indicate their opinions of the importance of the activities in values ranging as follows:

- 4 - extreme--highest or utmost degree of importance
- 3 - considerable--somewhat large in amount of importance
- 2 - medium--medium or fair amount of importance
- 1 - some--a little importance
- 0 - not important--no importance

The pilot study.-- The revised questionnaire was then presented to five school nurses, who checked the items and made comments concerning how further clarifications could be made. As a result of this pilot study, several items were rearranged for the areas of Counseling and Guidance and Health Education. The list of twenty selected activities was revised to conform more closely to the current practices of school nursing in Oregon.

The final draft of the questionnaire was arranged in the following form: (Appendix A)

- PART I. 13 questions relating to general information of the job situation and to personal and professional qualifications of the nurses;
- PART II. 125 school nursing activities, listed under seven broad areas of functions, to be checked for frequency of performance;
- PART III. 20 selected activities, to be ranked according to the nurses' perception of importance.

4. 3rd phase: Procurement of Data

Selection of the sample.--The population chosen for the

study was a group of nurses who serve the schools either as members of the school personnel or as individuals in generalized community health programs. In order to obtain a sample from the population, it was necessary to utilize a double sampling technique. (13: 19-20; 31-34)

In August, 1961, the Oregon State Board of Nursing was contacted for permission to obtain the names and addresses of nurses who were currently registered in the state and were classified as school nurses and/or staff public health nurses. From the files the names and addresses were obtained of 73 nurses, classified as school nurses, and 171 nurses classified as staff public health nurses, a total of 244. The names of supervising nurses and those employed in college or university health services were not included since this study was directed only to the staff nurses who were actively engaged in the school health programs in elementary and secondary schools.

A letter, sent to the 244 nurses, briefly explained the proposed study, requested their participation, and asked them to return a card indicating whether or not their present position included service to the schools. (Appendix B) 156 responses were obtained from the 244 letters.

From the 156 responses a sub-sample of 113 nurses was selected on the basis of limitation to nurses serving elementary and secondary schools, either public or parochial. The number eliminated from the 156 were those who were no

longer engaged in school nursing, had moved from the area, were in public health positions which did not include programs in the schools, or did not care to participate.

Submission of the questionnaire.-- In October, 1961, a letter was constructed which explained in detail the purpose of the study and gave instructions for the completion of the questionnaire; it was endorsed by the thesis adviser. The letter and the questionnaire were submitted to the 113 nurses in the sample group. A dead line for the return of the data was set for November 10, 1961. (Appendix B)

Of the 113 questionnaires mailed out, 101 were returned. Of the 101 returned 7 were not used because the information was returned after the dead line date or the data were not complete for analysis. 4 of the questionnaires imparted special findings which are reported in a separate category following the analysis of the major group. 89 of the responses were analyzed for the body of this report. An analysis of the post marks on the returned questionnaires revealed that the sample was representative of 29 of the 36 counties of the state.

5. Analysis of General and Professional Information

For Part I responses were grouped--nurses employed by Boards of Education and Departments of Health--and were analyzed on the basis of modal value with percentages calculated. This analysis gave descriptive information regarding salary

marital status, educational background, and professional qualifications. (38: 27-30) The responses were also compared for differences and similarities. The master tabulation for the responses and the specific breakdowns of responses listed as "other" are shown in Appendix C.

Nurses employed by the boards of education.-- For the 25 nurses who were employed by the Boards of Education, 56% were administratively responsible to the school administrator. 28% were responsible to a school nurse supervisor, while 8% were responsible to a public health nurse supervisor. 8% worked with joint administrators, either a school nurse supervisor and a school physician or a health officer and a school physician.

Direct nursing supervision was available to 48% of the nurses through public health nurse consultants. 32% reported supervision available from a school nurse supervisor; 8% a public health nurse supervisor; 8% relied upon both a public health nurse supervisor and public health nurse consultants, while 4% had supervision from all three sources.

All 25 nurses served the public schools. The types of schools served by 60% were a combination of elementary and secondary; 24% served only elementary schools; 16% served only high schools.

The approximate time spent per nurse per school for 52% of the nurses was 1/2 to 1 day per week. 20% spent 1/2 to 2 days per week per school; 16% spent 1-1/2 to 2 days per week

per school; 8% spent 1-1/2 to 2 days per week per school; and 4% reported that time varied from 1/2 to 4 days per week.

60% of the nurses served 1-4 schools; 40% served a range of schools from 5 to over 20. The pupil load for 48% of the nurses was 1,500 - 2,999 students; 28% reported a pupil load of 1,000 - 1,499; 12% reported pupil loads from 5,000 - 9,999; 8% reported pupil loads of 500 - 999; and 4% reported pupil loads of 3,000 - 4,999.

The salary range reported most frequently was \$5,000 - \$5,999 per annum; 36% were in this category. 28% of the salaries ranged over \$6,000, while 36% ranged from \$3,000 to \$4,999. The lower range salaries were in accordance with amount of time employed.

Personal and professional information revealed that 76% of the 25 nurses were graduates of diploma schools of nursing, hospital controlled. Of this group 10.5% had received public health nursing preparation in the program; 42.1% following the program; and 5.2% both in the diploma program and following the diploma program. 36.8% had received some additional preparation and 5.2% had received no additional preparation beyond the diploma program. 24% of the 25 nurses were graduates of basic baccalaureate degree programs. Of this group 33.3% had received preparation in public health nursing in the basic program; 16.6% both in the basic program and following the basic program; 33.3% had received some additional preparation; 16.6% no additional preparation beyond the basic

program. Additional preparation beyond the diploma or the basic programs included college extension courses, school nursing field experience, or workshops. 21% of the graduates from diploma programs had subsequently been granted a Bachelor's degree.

68% of the 25 nurses were between 35-49 years of age; 72% were married.

Nurses employed by departments of health.-- For the 64 nurses who served the schools as a part of the community program, the employing agency was the Department of Health, either the county or city units. 36% of the nurses were administratively responsible to the Health Officer; 34.3% were administratively responsible to a Public Health Nurse Supervisor. 28.1% of the nurses were responsible to two or more administrative persons, varying from the Public Health Nurse Supervisor and the Health Officer to the Health Officer and the county Court.

Direct nursing supervision was available to 59.3% of the nurses from a Public Health Nursing Supervisor. 20.3% utilized the services of Public Health Nurse Consultants, while 20.3% relied for supervision upon the Public Health Nurse Consultants and the Public Health Nurse Supervisor or Director.

56.2% of the nurses gave service to both public and parochial schools. 43.7% served only the public schools. 82.9% of the nurses gave service to both elementary and

secondary schools; 17.1% served only elementary schools.

53.1% were responsible for service to 5-9 schools; 21.8% served 1-4 schools, while 25.0% served a range of from 10 to 27 schools. 49.3% reported as a pupil load 1,500 - 2,999 students; 18.6% estimated pupil loads of 1,000 - 1,499; 15.3% reported pupil loads from 3,000 - 4,999; 11.8% had a pupil load of 500 - 999; 5.0% had 5,000 - 9,999.

The approximate time spent per school for 53.1% of the 64 nurses was 1/2 to 1 day per week; 9.5% reported time which varied from 1 to 3 days per week to 1 day per month; 37.4% reported varying combinations of time ranging from 1/2 day per week to 2 to 3 visits per year.

61.0% of the 64 nurses reported a salary range of \$4,000 - \$4,999 per annum; 32.9% indicated a salary range of \$5,000 - \$5,999; while 4.7% indicated salaries ranging from less than \$3,000 - \$3,999. The salaries in the lower range, were in proportion to the time served and in some instances were pro-rated on an hourly basis. Only 1.6% reported a salary of \$6,000.

Professional and personal information revealed that 59.3% of the 64 nurses were graduates of diploma schools, hospital controlled. Of this group 7.8% had received public health nursing preparation in the diploma program; 60.5% following their diploma program; 7.8% both in the diploma program and following the diploma program; 2.6% had received some additional preparation; 21.0% had received no additional

preparation beyond the diploma program. 34.3% of the 64 nurses were graduates from basic baccalaureate degree programs. Of this group, 59.0% had received public health nursing in the basic program; 31.8% following the basic program; and 4.5% both in the basic program and following the basic program. 4.5% had received no additional preparation beyond the basic program. 6.4% were graduates of associate degree programs and had received public health nursing preparation either in or following their programs. 13.1% of the graduates of the diploma programs subsequently had been granted their Bachelor's degree; 3.1% of the total group had Master's degrees.

75.0% were married, and 71.9% ranged in age from 35 to over 50 years.

Comparison of the two groups.-- From the responses of the two groups for the study, certain similarities and differences emerged.

Since the employing agencies differed, it was to be expected that there would be a divergence in the administrative control. The nurses who were employed as school personnel were responsible administratively either to their school nurse supervisor or to the school administrator; the nurses who served the schools as a part of a community health program were responsible either to the public health nurse supervisor or to the health officer. Table 1 presents these data.

Table 1. Responses of 25 Nurses Employed by Boards of Education and 64 Nurses Employed by Department of Health as to Whom They Were Administratively Responsible.

Administrative Supervision (1)	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Responses (2)	Per Cent (3)	Responses (4)	Per Cent (5)
P.H. Nurse Supervisor	2	8.0	22	34.3
School Nurse Supervisor.....	7	28.0		
School Administrator.	14	56.0	1	1.6
Health Officer.....			23	36.0
Other*.....	2	8.0	18	28.1
Total.....	25	100.0	64	100.0

* For breakdown of "Other" see Appendix C

Both groups made extensive use of the public health nurse consultants for nursing supervision: 48% of the nurses employed by the local school districts as compared to 20.3% of the nurses employed by the departments of health. Only 32% of the school nurses had available school nurse supervision; 59.3% of the nurses in the community programs had public health nurse supervisors. Because, at the present time, there are only a limited number of school nurse supervisors in the state, it was understandable that the nurses employed by the schools would often look to the consultants for direct nursing supervision, while the nurses in the community programs would utilize the public health nurse super-

visor available to them. Table 2 presents these data.

Table 2. Responses of 25 Nurses Employed by Boards of Education and 64 Nurses Employed by Departments of Health as to Source of Nursing Supervision

Nursing Supervision (1)	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Responses (2)	Per Cent (3)	Responses (4)	Per Cent (5)
P.H. Nurse Supervisor	2	8.0	38	59.3
School Nurse Supervisor.....	8	32.0		
P.H. Nurse Consultants.....	12	48.0	13	20.3
Other*.....	3	12.0	13	20.3
Total.....	25	100.0	64	99.9

* For breakdown of "Other" see Appendix C

As was expected, the nurses employed by the Boards of Education served only the public schools; while 56.2% of the nurses in the community programs served both public and parochial schools. 60% of the school nurses served a combination of elementary and secondary schools as compared to 82.9% of the nurses in the community programs. For elementary schools only, the groups varied from 24% to 17.1% respectively.

Since the total elementary school enrollment for the state public schools was reported for the 1960-1961 school year to have been 306,625 pupils, plus additional pupils for

the parochial schools, it is understandable that over 40% of the nurses would have been assigned to the elementary school population. (32: 144)

The nurse-school ratio varied with the two groups: (1) nurses employed by Boards of Education served 1-4 schools; (2) nurses employed by Departments of Health served 5-9 schools. However, one nurse employed by the Board of Education served a total of 25 schools, and two nurses who served the schools as a part of the community program served 25 and 27 schools respectively. The nurse-pupil ratio was essentially the same for both groups. Table 3 presents these data.

Table 3. Nurse-School, Nurse-Pupil Ratio for Sample Group

(1)	Nurses employed by Boards of Education	Nurses employed by Departments of Health
	(2)	(3)
Nurse-School Ratio	1 - 4	5 - 9
Nurse-Pupil Load	1,500 - 2,999	1,500 - 2,999

The Joint Committee on Health Problems in Education of National Education Association and American Medical Association has described situations wherein nurses serve elementary and secondary, public and parochial schools in the same area at the same time. Others confine their efforts to single large schools, several small schools, or may be assigned to a single school system. The Committee pointed out further

that the population group served by one nurse varied according to the budget, personnel available, density of population, amount of travel, number of schools, and assigned responsibilities. Ratios vary from state to state: for example, in New York, one nurse to 500 pupils in rural areas or one nurse to 1,000 pupils in urban areas; in Virginia, one nurse to 2,000 - 2,500 pupils in secondary schools. The usual recommendation for the public health nurse in a generalized community program is one nurse to 5,000 population. (18: 41-42) In Oregon, in 1960 the ratio of public health nurses to population was 1: 8,670. (33: 29)

The approximate time spent per school for the largest number in both groups was 1/2 to 1 day per school per week: 52% for nurses in the school system as compared to 53.1% for the nurses in the community program. Varying combinations of time proved too numerous for direct comparison. However, it was noted that 16% of the nurses in the school system spent as much as 4-1/2 to 5 days per week in contrast to only 3.1% of the nurses in the community program who were able to spend as much as 1-1/2 to 2 days per week per school. Since the nurses employed by the Departments of Health serve the schools as a part of their generalized programs, this time is of necessity apportioned in accordance with priority of needs. However, comments from various nurses participating in the study have indicated that considerable time is given to the school health programs. Two comments which

reflected the allocation of time are quoted as follows:

"In a generalized program, the school is a part, not the whole of the public health nurses' concern. School nursing per se, is not supposed to take more than 50% of the nurses' allotted time."

"In our particular county much of our time is spent on a school health program and many of our home visits stem from our activity in the school. Depending on the school, we may spend time either on home visits, teaching, or records."

The Joint Committee succinctly summed up the nurses' responsibilities relating to the time factor in the following statement:

"Whether the nurse is engaged in school work or in a generalized family service, how best to budget the limited time which may be available for any one school or any one group of children becomes a major problem. It is important that school personnel understand these limitations, as well as the total responsibilities and functions of the nurse, so that an appropriate share of the nurse's time may be allocated to the school."
(18: 42)

The salary range reported for the two groups differed slightly. 36% of the nurses employed by Boards of Education indicated per annum salaries of \$5,000 - \$5,999 as compared to 61% of nurses in the generalized programs who reported per annum salaries of \$4,000 - \$4,999.

The salaries of the nurses in the study group compared favorably with the national median annual salaries reported in Yearly Reviews for 1960: \$5,442 to nurses employed by Boards of Education and \$4,540 for nurses employed by local official health units. For the Pacific area, the largest number of staff public health nurses fell into the salary

range of \$4,400 - \$5,599 and the largest number of nurses employed by Boards of Education fell into the \$5,000 - \$6,599 group. (33: 152-157)

Table 4 presents the educational background of the sample. It is noteworthy that the largest percent of the two groups had been graduated from diploma schools, hospital controlled.

Table 4. Responses of Sample as to Type of School of Nursing from Which Graduated

Type of School (1)	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Responses (2)	Per Cent (3)	Responses (4)	Per Cent (5)
Diploma School (Hospital Controlled). Baccalaureate Degree Program.....	19	76.0	38	59.3
Associate Degree Program.....	6	24.0	22	34.3
			4	6.4
Total.....	25	100.0	64	100.0

Distribution of responses from the participants showing educational background and professional preparation is found in Appendix D.

The largest percent of both groups had received public health nursing preparation following their nursing program; 8% and 14% of the groups respectively had received no preparation beyond their school of nursing program. 40% and

45.3% respectively had received Baccalaureate degrees. 3.1% had received Master's degrees.

In the literature considerable emphasis has been given not only to the nurses' qualifications for public health nursing but also to the special preparation necessary for working with school children.

Recommended qualifications for school nurses employed in staff positions have been outlined by the School Nurses Branch, Public Health Nurses Section, American Nurses' Association and summed up as follows:

"The unique contribution of the school nurse is contingent upon her background in nursing. Her future as a school nurse depends on a sound educational background in a baccalaureate program in a collegiate school of nursing. Specialization in school nursing at the graduate level is essential for the nurse entering the school nursing field." (36: 8)

The responses of the sample studied showed that all nurses did not meet the recommended educational qualifications. Therefore, the responses of the participants were grouped according to whether or not the respondents had received special preparation for school nursing and were examined to determine if activities performed varied with educational background.

For the two groups performance of activities for each of the broad areas of functions were totaled and compared for significant differences by Chi-square technique. Six areas showed no significant differences. These findings negated hypothesis 4, that activities would vary according

to educational background. In Area V, Counseling and Guidance, the difference was significant; fewer activities in this area were performed by nurses without special preparation. Such findings should be considered in light of extraneous factors which might influence the scope of activities. Table 5 presents these data.

Table 5. Comparison of Responses for Performance of Activities in the Broad Areas of Functions by 78 Nurses with Preparation in Public Health and/or School Nursing and 11 Nurses without Special Preparation

Area*	Nurses with special preparation N = 78 Responses ^x		Nurses without special preparation N = 11 Responses		Chi-square (6)
	Activities		Activities		
	Activities Performed (2)	Not Performed (3)	Activities Performed (4)	not Performed (5)	
I.	631	297	76	45	1.58
II.	681	452	90	72	1.21
III.	1009	70	134	10	.07
IV.	1544	680	200	105	1.89
V.	1065	134	129	39	18.18 ⁺
VI.	922	313	123	55	2.47
VII.	1324	553	177	91	2.15

^x Responses are totals for performance of activities in the broad areas of functions by the sample groups. The number of responses possible for an area is the number of participants in the group multiplied by the number of the activities.

* Numerals refer to broad areas of functions; complete titles are listed in Appendix A

⁺ Chi-square significant at .01 level. P = less than .01

Personal information revealed that 68% of the school nurses were in the 34-49 age bracket. The nurses in the community program were fairly well divided with 39% in the 35-49 and 32.9% in the 50 and over age bracket. (Appendix C)

6. Analysis of Performance of Activities

For Part II the master tabulation of the responses is found in Appendix C. Analysis of the data was made on the basis of frequency from which percentages were calculated. Percentages were based on the total number of responses for each activity. For example, "zero" was used to indicate a value; therefore, it was used in calculating the percentages. If an activity was not checked, it was omitted.

(35: 110)

Total responses for the broad area of functions were compared for the nurses employed by Boards of Education and Departments of Health. Contingency tables were constructed, and the frequencies were tested for significant differences by the Chi-square test of independence. Critical values were established at the .01 level of confidence. (10: 148-152)

7. Analysis of Activities Performed

by Nurses Employed by

Boards of Education

Area I. Functions relating to the administration of the school health program.-- Twelve activities were listed which relate to the nurses' responsibilities in the administration of the school health program. Nurses have definite responsibilities in this area as was indicated in Chapter I and Chapter II.

These activities were analyzed as to whether they were

or were not performed and were listed in rank order of performance. Each of the twelve activities was performed by some of the nurses.

Three of the activities (6, 7, and 8) were performed by 100% of the nurses. It is noteworthy that these activities are related directly to safeguarding the health status of the pupils. Activity 6 related to the nurses' responsibility for keeping the administrator and teachers informed of the prevalence of disease and control measures. Activity 7 related to keeping the teacher informed of the pupils' defects. Activity 8 related to noting on the health record restrictions of activities for pupils. Since these activities have been clearly emphasized as nursing responsibilities in recommended school health practices for many years, it is not surprising that considerable effort would have been directed to this area.

96.0% of the nurses participated in planning policies with the administrator and local health authorities for the exclusion and re-admission of pupils and staff for health reasons, (Activity 3) and for educational adjustments for handicapped pupils (Activity 10). These activities also reflect the recognition of responsibilities for safeguarding the health status of the pupils.

Activities performed by only 47.8% and 32.0% of the nurses related to participating in the control of the school environment (Activities 5 and 4). Although these activities

are outlined by the National Conference for Cooperation in Health Education and the Joint Committee on Health Problems, as recommended responsibilities of the nurses in the schools (23: 37-40; 18: 37), whether or not nurses participate in the execution varies with school administrative policies and the delegation of responsibilities. For example, these activities might well be the responsibility of the school administrator, the building custodian, or the sanitarian.

The activity performed the least by the nurses (16.0%) was participating in the school lunch menu planning. Although nurses have received preparation in nutrition and dietary planning, their activities in this area appear to be limited to recommending pupils for school lunches. Table 6 depicts these responses.

Table 6. Rank Order of Responses by 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to the Administration of the School Health Program

Area I	Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
Activity#	(2)	(3)	(4)
	(1)		
6.	prevalence of disease and control measures.....	25	100.0
7.	lists of pupils with defects for teachers.....	25	0.0
8.	pupil activity restrictions.....	25	0.0
3.	policies regarding exclusion and readmission of pupils.....	25	4.0
10.	educational adjustment for handicapped.....	25	4.0
1.	educational programs relating to community health projects.....	25	12.0
9.	modified programs for pupils.....	25	24.0
12.	children to receive school lunch..	25	24.0
2.	school health program.....	25	28.0
5.	follow-up for conditions needing improvement.....	23	52.2
4.	annual check of buildings and grounds.....	25	68.0
11.	school lunch menu planning.....	25	84.0

* A complete list of statements appears in Appendix A

Area II. Functions relating to the Nurse's role as a faculty member.-- Of the 15 activities relating to the nurse's role as a faculty member, three were performed by 100% of the nurses. Activity 8 related to the nurses' supervision of the ill, injured, or isolated pupils at school. Activity 10 related to the nurses' responsibility for contacting the physician or health agency for assurance of continuity of care for pupils with illnesses. Activity 13 related to the nurses' responsibility for sharing information with personnel concerning extraneous factors in the pupil's home which tended to affect the adjustment to school. These performances are in accordance with recommended practices. (17, 18, 23)

92.0% of the nurses made home visits to follow-up pupils' illnesses (Activity 9). That nurses in Oregon spend considerable time with this activity is reflected by the findings of the Sirnio study which reported that the practice of having a high rate of follow-up recorded was indicative of the effective teamwork of teachers and nurses. (37: 95)

80.0% of the nurses participated in faculty in-service programs, while only 52.0% assisted the faculty in the planning and evaluating of the curriculum for health instruction.

The activities performed the least by the nurses were those relating to planning and supervising nursing students in field experience in public health and school nursing. Since only specific areas selected by schools of nursing

are utilized for field experience for nursing students, the limitation in this area was understandable. Table 7 presents these responses.

Table 7. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to the Nurse's Role as a Faculty Member

Area II	Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
Activity*	(2)	(3)	(4)
8. supervision--ill, injured pupils..	25	100.0	0.0
10. physician or agency contact.....	25	100.0	0.0
13. influential home factors.....	25	100.0	0.0
9. home visits as follow-up for ill..	25	92.0	8.0
11. investigation of pupil absences...	25	84.0	16.0
3. faculty in-service program.....	25	80.0	20.0
12. inspection of new entrants.....	25	80.0	20.0
4. committee on health program.....	25	68.0	32.0
5. research in school nursing.....	24	62.5	37.5
6. research for specialized programs.	24	62.5	37.5
2. safety programs.....	25	56.0	44.0
1. curriculum for health instruction.	25	52.0	48.0
7. supervision of rest program.....	24	41.7	58.3
14. student field experience.....	24	12.5	87.5
15. advisor for nursing students.....	24	8.4	91.6

* A complete list of statements appears in Appendix A

Area III. Functions relating to the community.-- All 14 of the activities in this area were performed by over 50% of the nurses. Four of the activities were performed by 100% of the nurses. These activities (5, 10, 11, 12) centered around the nurses' responsibilities in working with the families to encourage use of health services and to focus attention on care of ill pupils and correction of defects.

24 nurses reported that they performed service as a liaison between home, school, and community, interpreted health and social needs to teachers and community, and followed-up for action taken on referrals.

Such findings, reflected by the high percentages of performance are consistent with the recommendations of Gertrude Cromwell, who points out the opportunities which nurses have for working with community groups and for:

"....educating the public concerning personal and community health; the methods of improving them; the community resources available; and the resources which need to be developed. These are the goals of her program. Her routine duties are only roads by which she may successfully help a community attain the best there is in health."
(9: 20)

Table 8 presents these responses.

Table 8. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to the Community

Area III Activity*	(1)	Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
5. family's use of health resources...		25	100.0	0.0
10. information to parents of ill.....		25	100.0	0.0
11. notices of defects to parents.....		25	100.0	0.0
12. action on correction of defects....		25	100.0	0.0
14. liaison between school and parents.		24	100.0	0.0
6. information to parents regarding contact diseases.....		24	95.8	4.2
8. referrals to agencies.....		25	92.0	8.0
2. interpretation of health program..		24	91.7	8.3
3. interpretation of health and social needs.....		24	91.7	8.3
4. programs implemented in community.		23	91.3	8.7
9. action on referrals to agencies....		24	83.3	16.7
1. information of services to parents		25	80.0	20.0
7. referrals to specialists.....		25	80.0	20.0
13. follow-up of tuberculin reactors..		25	56.0	44.0

* A complete list of statements appears in Appendix A

Area IV. Functions relating to health appraisal.-- There are varying viewpoints as to the chief purposes of the health appraisal process. Teachers and administrators tend to view the procedure as a means of providing them with information needed to adjust the school program to meet the health needs of the pupils. Physicians and nurses tend to look upon health appraisal as a means of detecting defects and diseases and as an opportunity for directing parents and teachers attention to conditions needing correction.

25 nurses reported that they interpreted health histories to teachers from the Oregon Pupil Medical Record Form (Activity 26). The performance of this activity is in accordance with recommended practices regarding the dissemination of health information to school personnel. (18: 36-37)

24 nurses reported that they performed Activity 1, relating to obtaining health histories of pupils through parent interviews. Since pre-school parent meetings are recommended annually for the schools in the state, an excellent opportunity is provided for the nurses to interview the parents and explain the health services. (31: 60) 22 nurses reported that they also interpreted the health histories to parents from the Oregon Pupil Medical Record.

25 nurses reported that they performed Activity 13, which related to the follow-up for correction of visual defects. The Sirnio study revealed that in Oregon this type of health defect was the one most frequently referred for

correction. Comments of the respondents in the present study emphasized the fact that follow-up for correction of visual defects was carried out on a continuous basis and that in many cases repeated follow-up was necessary and often extended over a period of months.

For rescreening purposes 24 nurses reported that they made use of the Snellen test, which is still generally accepted as the best basic test of distance visual acuity. (31: 19) However, 8.7% of the nurses made use of the plus sphere test, Massachusetts Vision test, and teacher observation as aids in visual rescreening. Further, 70% of the 20 nurses reporting did initial visual screening.

Over 50% of the nurses performed activities relating to referral of pupils and follow-up for the specialty clinics-- Child Guidance, Crippled Childrens' Service and tuberculosis. Also over 50% organized and assisted with periodic health examinations and health appraisals.

Activities which were performed least related to the referral of pupils with cardiac conditions and to tuberculin testing (Activities 26 and 18). Although Bech reported that in 125 schools studied in this state, 71% of the nurses made independent referrals (3: 31) comments from the respondents in the present study indicated that referrals to cardiac clinic were made either through the physician or the health agency. In a like manner, tuberculin testing was most often carried out in cooperation with the local health department. Table 9 presents these responses.

Table 9. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to Health Appraisal

Area IV	(1)	(2)	(3)	(4)
Activity*		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
1. parent interviews for health histories.....		24	100.0	0.0
2a. interpretation of health histories to parents.....		22	100.0	0.0
2b. interpretation of health histories to teachers.....		25	100.0	0.0
12. visual rescreening.....		24	100.0	0.0
13. follow-up for correction of visual defects.....		25	100.0	0.0
3. information recorded on health record card.....		25	92.0	8.0
28. test results recorded on health record.....		25	92.0	8.0
21. referrals to Child Guidance Clinics.....		24	91.7	8.3
17. follow-up on correction of hearing loss.....		25	88.0	12.0
23. follow-up of referrals to guidance clinics.....		25	88.0	12.0
7. dental inspection in general check of pupils.....		25	84.0	16.0
22. referrals to school guidance committee.....		24	75.0	25.0

(concluded on next page)

Table 9. (concluded)

Activity (1)	Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
25. follow-up of referrals for Crippled Childrens' Service.....	25	72.0	28.0
11. initial visual screening.....	20	70.0	30.0
16. referrals of pupils with hearing losses.....	25	68.0	32.0
9. follow-up for dental recommendations.....	24	66.7	33.3
20. follow-up of recommendations by tuberculosis clinic, etc.....	24	66.7	33.3
24. referrals to Crippled Childrens' Service.....	24	66.7	33.3
5. health examinations.....	25	64.0	36.0
6. initial dental inspection.....	25	64.0	36.0
10. periodic weights and measurements.	25	60.0	40.0
4. organization of health examination programs.....	25	56.0	44.0
19. referrals to tuberculosis clinic..	24	54.2	45.8
14. group audiometer testing.....	24	45.8	54.2
27. follow-up of referrals to Cardiac clinic.....	23	30.4	69.6
8. assist with dental inspections.....	25	28.0	72.0
15. audiometer retests.....	25	28.0	72.0
26. referrals to Cardiac clinic.....	23	21.8	78.2
18. tuberculin testing.....	25	20.0	80.0

* A complete list of statements appears in Appendix A

Area V. Functions relating to counseling and guidance.--

The school nurses deal primarily with well children; consequently, they must have an understanding of normal growth and development and be able to recognize deviations from the normal. Working with parents also is one of their most important activities, since often the nurses are the only members of the school personnel with whom the parents have the opportunity to confer. It is essential, therefore, that nurses provide counseling and guidance to pupils, parents, and school personnel in order to plan action for dealing with health problems of pupils that interfere with effective learning.

Activities 1 and 2, which relate to directing teachers' and parents' attention to deviations from normal growth and development were performed by all of the nurses. Teacher-nurse conferences (Activity 6 and 9b) were performed by 24 nurses. The performance of these activities is in accordance with the general trend and follows the pattern established in this state. For a number of years the Oregon school system has emphasized the value of teacher-nurse conferences as a part of the screening procedure that serves as a basis from which the teachers and nurses plan the health programs for the group and for the individual. Other conferences are initiated when there is a need to consider the problems or conditions of particular pupils and provide an opportunity for sharing information as to how the problems may be met.

Activities 13 and 15 relate to the role of the nurse as a counselor for both pupils and personnel in matters pertaining to health. These activities were performed by 24 reporting. 95.8% of the group provided health counseling for the parents (Activity 14).

Among the 10 activities relating to counseling and guidance, only one was performed by less than 50% of the participants. Activity 10, relating to group conferences with pupils having the same health problem, was performed by only 41.7% of the nurses. This is in contrast to individual conferences with pupils regarding their health problems (Activity 7), which was performed by all of the nurses.

Table 10 depicts the responses of the nurses in this area.

Table 10. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to Counseling and Guidance

Area V Activity*	(1)	(2)	Per Cent Performing Activity	(3)	Per Cent Not Performing Activity
1. teachers' attention to deviations.	25	100.0	0.0	0.0	0.0
2. parents' attention to deviations..	25	100.0	0.0	0.0	0.0
4. parents' attention--mental health.	25	100.0	0.0	0.0	0.0
6. interpretation of physicians' recommendations.....	24	100.0	0.0	0.0	0.0
7. interviews with pupils--treatment.	24	100.0	0.0	0.0	0.0
9b. teacher-nurse conferences.....	24	100.0	0.0	0.0	0.0
13. health counselor to pupils.....	24	100.0	0.0	0.0	0.0
15. counselor to school personnel.....	24	100.0	0.0	0.0	0.0
3. teachers' attention--mental health deviations on cumulative record...	25	96.0	4.0	4.0	4.0
5. interviews with parents regarding pupils' health status.....	25	96.0	4.0	4.0	4.0
8. health counselor to parents.....	24	95.8	4.2	4.2	4.2
14. group conferences with teachers...	24	95.8	4.2	4.2	4.2
9a. plan for pupils with limitations...	15	93.3	6.7	6.7	6.7
12. school guidance committee.....	24	87.5	12.5	12.5	12.5
11. group conferences with pupils.....	23	52.2	47.8	47.8	47.8
10. group conferences with pupils.....	24	41.7	58.3	58.3	58.3

* A complete list of statements appears in Appendix A

Area VI. Functions relating to health education.-- The National Conference for Cooperation in Health Education has clearly outlined the role of the nurses in health education and has identified them principally as interpreters, advisers, consultants, coordinators, resource persons, and formal teachers for home nursing and first aid--if they are educationally qualified. (23: 41-43)

Activities 14, 2, 3, 5, relating to the nurse's role as a resource person to teachers, as a health teacher for pupils following illnesses or for pupils specifically referred by the teacher, and as an informal teacher of first aid were performed by 100% of the group reporting.

Guiding teachers in classroom inspections and pupil observations (Activities 10 and 9) were activities performed by over 90% of the group, 25 and 23 reporting. Activities 15 and 8, assisting teachers in procurement of health materials for instruction and in presentation of health units, were performed by over 80% of the group.

Visual screening (Activities 11a and 11b) was demonstrated to the teachers by 82.7% of the group of 23 nurses and to lay groups by 69.2% of 13 reporting. That this trend toward delegating visual screening to lay groups is becoming increasingly popular throughout the state is evidenced from the comments of the nurses. P.T.A. groups, Mothers Clubs, and Health Councils were the chief groups listed.

Relative to the nurses' role as formal classroom

teachers, 45.8% of the 24 reporting gave formal classroom instruction. Less than 21% gave formal classes in home nursing and Red Cross first aid. Only 17.5% of 23 reporting assisted with sex education for boys. Table 11 depicts these responses.

Table 11. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to Health Education

Area VI Activity*	(1)	Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
14. resource person to teachers.....		25	100.0	0.0
2. pupils returned from illnesses.....		24	100.0	0.0
3. interviews with referred pupils....		24	100.0	0.0
5. informal teaching of first aid.....		24	100.0	0.0
10. classroom inspection of pupils.....		25	96.0	4.0
15. health material for instruction....		25	96.0	4.0
4. illness absences on health record.		24	95.8	4.2
9. teachers' observations for devia-				
tions.....		23	95.7	4.3
11a. visual screening demonstrations....		23	82.7	17.3
8. class presentation of health units		25	80.0	20.0
1. check for hygienic practices.....		23	73.9	26.1
12. sex education for girls.....		24	70.8	29.2
11b. visual screening for lay groups....		13	69.2	30.8
16. formal classroom instruction.....		24	45.8	54.2
7. instruction for home nursing.....		23	21.8	78.2
13. sex education for boys.....		23	17.5	82.5
6. Red Cross first aid classes.....		24	12.5	87.5

* A complete list of statements appears in Appendix A

Area VII. Functions relating to health protection and safety.-- The 25 activities listed for this area are related to the control of the school environment, disease prevention, protection from illness and accidents, and health promotion.

Activity 7, relating to administration of first aid, was performed by 100% of the group. Activity 24, relating to inspection of suspects of communicable disease was performed by the 23 reporting.

Notification of parents of ill or injured pupils and transportation for the ill or injured (activities 14 and 15) were performed by 95.8% of the 24 nurses reporting.

Considerable emphasis was placed on the immunization program. Activities 17, 19, 20, 21, 22, and 23 pertained to immunizations and were performed by over 60% of the groups (24 and 23) reporting. Activity 17, relating to the review of health records to determine the immunization status of the pupils, was performed by 95.8% of the group.

Activities performed least (11 and 10) related to the review, summary, and written reports of accidents. Table 12 presents these responses.

Table 12. Rank Order of Responses of 25 Nurses Employed by Boards of Education and Per Cent Who Perform or Do Not Perform Functions Relating to Health Protection and Safety

Area VII		Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
Activity*	(1)			
7. first aid administration.....		25	100.0	0.0
24. inspection of suspects for com- municable disease.....		23	100.0	0.0
9. record of minor, major accidents..		24	95.8	4.2
14. transportation of ill or injured..		24	95.8	4.2
15. contact parents of ill or injured.		24	95.8	4.2
17. immunization status of pupils.....		24	95.8	4.2
12. recommendations regarding accident prevention.....		24	91.7	8.3
8. inspection of first-aid stations..		23	91.3	8.7
25. classroom inspection for com- municable disease.....		24	87.5	12.5
4. preparation of instructions for care of emergencies.....		24	83.3	16.7
13. follow-up for accidents.....		24	83.3	16.7
2. attention to environmental hazards		25	80.0	20.0
6. proper emergency procedures.....		25	80.0	20.0
23. immunizations recorded.....		24	79.2	20.8
19. parents' notification of needed immunizations.....		24	75.0	25.0
20. date, time of immunization clinics		24	75.0	25.0
22. immunization clinics.....		23	73.9	26.1
5. explanation of emergency plans....		24	70.8	29.2

(concluded on next page)

Table 12. (concluded)

Area VII		Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
Activity	(1)			
16.	lunch room facilities and food handling.....	22	68.2	31.8
18.	immunization lists.....	24	66.7	33.3
3.	interpretation of sanitation laws.	24	62.5	37.5
21.	plans for immunization of clinics....	23	60.9	39.1
11.	sanitary inspection of facilities.	25	60.0	40.0
10.	review of accident reports.....	25	60.0	40.0
	written reports of accidents.....	24	41.7	58.3

* A complete list of statements appears in Appendix A

7. Analysis of Activities Performed
by Nurses Employed by
Departments of Health

Area I. Functions relating to administration of the school health program.-- The number of responses for each activity varied from 58 to 64. No activity was performed by all 64 of the nurses reporting.

Activity 6, relating to the nurses' responsibility for keeping the administrator and teachers informed regarding the prevalence of disease and control measures, was performed by the 62 nurses reporting. Activity 8, relating to the nurses' responsibility for noting on the health record restrictions of activities for pupils, was performed by 96.7% of the 61 nurses reporting. Since these activities pertain to safeguarding the health of the pupils by keeping the school personnel informed of factors affecting health, it is not surprising that considerable effort would have been directed in this area.

84.5% of 58 nurses reported that they performed Activity 12, recommending pupils for the school lunch program; however, only 11.1% of 63 nurses reporting actually worked with dietary personnel on the school lunch menu planning. (Activity 11)

Activities 1, 3, and 2 which focus upon planning with school and community groups for specific health programs and policies, were performed by over 50% of the group reporting.

Activities performed least related to the school environment and school lunch menu planning. Only 17.2% and 11.1% of 64 and 63 reporting performed these activities. Time and administrative frameworks as previously described were pointed out in the comments as forces influencing whether or not the nurses performed activities of these types. Table 13 presents these responses.

Table 13. Rank Order of Responses by 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to the Administration of the School Health Program

Area I Activity*	(1)	(2)	(3)	(4)
		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
6. prevalence of disease and control measures.....		62	100.0	0.0
8. pupil activity restrictions.....		61	96.7	3.3
12. children to receive school lunch..		58	84.5	15.5
1. educational programs relating to community health projects.....		63	81.0	19.0
3. policies regarding exclusion and readmission of pupils.....		63	79.4	20.6
10. educational adjustment for handicapped.....		61	73.8	26.2
7. lists of pupils with defects for teachers.....		62	71.0	29.0
9. modified program for pupils.....		63	69.9	30.1
2. school health program.....		64	53.1	46.9
5. follow-up for conditions needing improvement.....		61	44.3	55.7
4. annual check of buildings and grounds.....		64	17.2	82.8
11. school lunch menu planning.....		63	11.1	88.9

* A complete list of statements appears in Appendix A

Area II. Functions relating to the nurse's role as a faculty member.-- Responses to these activities varied from 61 to 64; the total group reported on only one activity.

Activities performed most by the group (62 and 61 reporting) pertained to the nurses' responsibilities for protecting the health of the pupils. Activity 13, relating to sharing information of influential factors in the home environment which affect pupils, was performed by 62 of the respondents. Since the nurses in the community programs have frequent access to the homes and to family records, the high responses to this activity is understandable. Home visits (Activity 9) and contacts for continuity of care for ill pupils (Activity 10) were performed by 98.4% of the group reporting. This high percentage again directs attention to the nurses' activities in protecting the health of the pupils.

Activity 11, relating to the investigation of pupils absent because of illnesses and Activity 8, pertaining to the supervision of ill, injured, or isolated pupils at school were performed by over 70% of the group reporting.

58.1% of 62 nurses reporting served as student advisers for student nurses in field experience in public health nursing. However, only 37.1% of the group participated with faculties in schools of nursing in the planning of the field experience.

Activities least performed by the group related to assisting the faculty in planning the curriculum for health

instructions (Activity 1) and to supervising a rest program for selected pupils (Activity 7). 36% of the total group performed Activity 1. 21% of 62 nurses reporting performed Activity 2. Table 14 depicts these responses.

Table 14. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to the Nurse's Role as a Faculty Member

Area II	(1)	(2)	(3)	(4)
Activity*		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
13.	influential home factors.....	62	100.0	0.0
9.	home visits as follow-up for ill..	61	98.4	1.6
10.	physician or agency contact.....	61	98.4	1.6
11.	investigation of pupil absences...	62	77.4	22.6
8.	supervision--ill, injured pupils..	61	73.8	26.2
15.	advisor for nursing students.....	62	58.1	41.9
3.	faculty in-service program.....	62	53.3	46.7
4.	committee on health program.....	61	42.6	57.4
2.	safety programs.....	62	40.3	59.7
12.	inspection of new entrants.....	61	39.4	60.6
6.	research for specialized programs.	62	38.7	61.3
5.	research in school nursing.....	62	37.1	62.9
14.	student field experience.....	62	37.1	62.9
1.	curriculum for health instruction.	64	36.0	64.0
7.	supervision of rest programs.....	62	21.0	79.0

* A complete list of statements appears in Appendix A

Area III. Functions relating to the community.-- The responses to the activities in this area varied from 61 to 64. None of the activities was performed by 100% of the total group; however, all 14 of the activities were performed by over 80% of the group reporting.

Activities performed by the largest number of nurses tended to center around the correction of health problems and the interaction with family, community agencies, and the school. Activities 12 and 13 were performed by 63 and 62 nurses reporting. These activities related to the follow-up for correction of defects and the epidemiologic investigation for tuberculin reactors. Activities 5, 11, 14, and 8, relating to encouraging families' use of health resources, acquainting parents with pupils' defects, making referrals to agencies, and serving as a liaison between school, home, and community, were performed by 98.4% of the group (62 and 64) reporting. The high percentage of performance of these activities is understandable because of the responsibilities which public health nurses in generalized programs have for health supervision of families. (34: 1255)

Activities 10, 2, 9, 3, and 1 related to the nurses' responsibilities for directing the care of ill pupils, for following up the referrals made, and for informing and interpreting to school personnel, parents, and community the health and social needs and the programs and services available in the community. Over 90% of the group reporting (62

and 64) performed these activities.

The activity least performed was that of participating in health programs which originated in the schools and were implemented within the community. Table 15 presents these responses.

Table 15. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to the Community

Area III	(1)	(2)	(3)	(4)
Activity*		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
12.	action on correction of defects...	63	100.0	0.0
13.	follow-up of tuberculin reactors...	62	100.0	0.0
5.	families' use of health resources...	64	98.4	1.6
11.	notices of defects to parents...	64	98.4	1.6
14.	liason between school and parents.	63	98.4	1.6
8.	referrals to agencies.....	62	98.4	1.6
10.	information to parents of ill.....	64	96.9	3.1
2.	interpretation of health program..	63	96.8	3.2
9.	action on referrals to agencies...	62	96.8	3.2
3.	interpretation of health and social needs.....	64	93.8	6.2
1.	information of services to parents	63	93.7	6.3
7.	referrals to specialists.....	61	88.5	11.5
6.	information to parents regarding contact diseases.....	63	85.7	14.3
4.	programs implemented in community.	62	80.7	19.3

* A complete list of statements appears in Appendix A

Area IV. Functions relating to health appraisal.-- The responses to these activities varied from 51 to 64. None of the activities was performed by 100% of the total group of 64.

Activity 20, performed by the 62 nurses reporting, related to the follow-up of recommendations made by tuberculosis clinic, the health agency, and the private physician. The performance of this activity is consistent with Activity 13 in Area III. In addition, 80.7% made referrals to tuberculosis clinics; 77.4% did tuberculin testing. Since education of pupils concerning the nature of tuberculosis and epidemiologic investigations has been carried out through coordinated planning by schools, health departments, physicians, and local associations for a number of years, the high percentage of responses by nurses for these activities was to have been expected. (31: 37)

Activity 26, interpretation of health histories from the Oregon Pupil Medical Record to teachers was performed by the 62 nurses reporting. 51 nurses reported also interpreting health histories to parents.

Activities 11, 12, and 13 related to visual screening. 61 nurses reported that they performed visual rescreening and made use of the Snellen visual test (Activity 12). Some of this group also made use of the plus sphere test, the Massachusetts vision test, and teacher observation. Only 34.4% of the total group did initial visual screening. How-

ever, 98.4% of 63 reporting, did follow-up for correction of visual defects. Essentially, the activities in this area were confined chiefly to rescreening and follow-up.

Over 50% of the nurses performed activities relating to referral of pupils with problems to specialty clinics and to follow-up of recommendations made for corrections. Over 50% assisted with organization and execution of health examinations.

The activities least performed related to periodic health appraisals (Activity 10) and assistance with dental inspection (Activity 8). Although only 17.5% of the nurses assisted with dental inspections, when pupils were referred to them for health reasons, 67.2% of the nurses gave dental inspections as a part of their general examination.

That performance of activities varied considerably within the group itself was summed up in the comments of one of the respondents:

"I do an unusual amount of screening and referrals in the fall, but I do not do much recording on Medical Records.I have found that by individual screening of vision and dental defects and noting other unusual signs that are evident early in the school year I am able to do a much more complete and meaningful and helpful school health program."

Table 16 presents the responses for this area.

Table 16. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to Health Appraisal

Area IV	Activity*	Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
	(1)			
	20. follow-up of recommendations by tuberculosis clinic, etc.....	62	100.0	0.0
	2b. interpretation of health histories to teachers.....	62	100.0	0.0
	12a. visual rescreening.....	61	100.0	0.0
	13. follow-up for correction of visual defects.....	63	98.4	1.6
	2a. interpretation of health histories to parents.....	51	96.1	3.9
	17. follow-up on correction of hearing loss.....	62	95.2	4.8
	24. referrals to Crippled Childrens' Service.....	62	92.0	8.0
	25. follow-up of referrals for Crippled Childrens' Service.....	62	90.3	9.7
	1. parent interviews for health histories.....	61	90.2	9.8
	21. referrals to Child Guidance Clinics.....	62	87.1	12.9
	23. follow-up of referrals to guidance clinics.....	60	81.7	18.3
	19. referrals to tuberculosis clinic..	62	80.7	19.3
	18. tuberculin testing.....	62	77.4	22.6

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Table 16. (concluded)

Area IV Activity	(1)	Responses (2)	Per Cent Performing Activity (3)	Per Cent Not Performing Activity (4)
28.	test results recorded on health record.....	60	76.7	23.3
16.	referrals of pupils with hearing loss.....	61	75.4	24.6
3.	information recorded on health record card.....	63	71.4	28.6
9.	follow-up for dental recommendations.....	60	70.0	30.0
7.	dental inspection in general check of pupils.....	64	67.2	32.8
27.	follow-up of referrals to Cardiac Clinic.....	62	66.2	33.8
5.	health examinations.....	62	64.5	35.5
26.	referrals to Cardiac Clinic.....	63	60.3	39.7
22.	referrals to school guidance committee.....	63	57.2	42.8
4.	organization of health examination programs.....	64	53.1	46.9
14.	group audiometer testing.....	61	47.6	52.4
6.	initial dental inspection.....	63	36.5	63.5
11.	initial visual screening.....	64	34.4	65.6
15.	audiometer retests.....	63	27.0	73.0
10.	periodic weights and measurements.....	64	20.3	79.7
8.	assist with dental inspections.....	63	17.5	82.5

* A complete list of statements appears in Appendix A

Area V. Functions relating to counseling and guidance.--

Responses for these activities varied from 43 to 64. Only one of the activities was performed by 100% of the total group.

Activities 6 and 9b related to the teacher-nurse conferences. Activity 6 was performed by 100% of the total group and included not only discussion of pupil's health problems but interpretation of physicians' recommendations to the teachers. Activity 9b, performed by 98.4% of 61 reporting pertained to individual teacher-nurse conferences; Activity 9a, performed by 93.0% of 43 reporting, related to group conferences with the teachers.

96.9% of the total group interviewed parents regarding pupils' health status (Activity 8) and 90.6% interviewed pupils in school regarding the health plan for care.

Activities 1, 2, 3, and 4 related to directing the attention of parents and teachers to deviations from normal --both physical and mental. Over 87% of the nurses reporting (62 and 63) performed these activities.

Activities 13, 14, and 15 related to the nurses' role as health counselors to pupils, parents, and school personnel. 93.8% and 90.6% of the total group gave counseling to pupils and parents. 88.9% of 63 reporting gave counseling to school personnel.

The activity performed the least (Activity 11) related to participation in School Guidance Committee meetings. Only

33.3% of 63 reporting performed this activity. Table 17 depicts these responses.

Table 17. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to Counseling and Guidance

Area V	(1)	(2)	(3)	(4)
Activity*		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
6. interpretation of physicians' recommendations.....		64	100.0	0.0
9b. teacher-nurse conferences.....		61	98.4	1.6
8. interviews with parents regarding pupils' health status.....		64	96.9	3.1
1. teachers' attention to deviations.		63	95.2	4.8
2. parents' attention to deviations..		63	95.2	4.8
13. health counselor to pupils.....		64	93.8	6.2
9a. group conferences with teachers...		43	93.0	7.0
7. interviews with pupils--treatment.		64	90.6	9.4
14. health counselor to parents.....		64	90.6	9.4
3. teachers' attention--mental health counselor to school personnel.....		62	90.3	9.7
15. plan for pupils with limitations..		63	88.9	11.1
4. parents' attention--mental health. deviations on cumulative record....		63	87.3	12.7
10. group conferences with pupils.....		62	87.1	12.9
11. school guidance committee.....		62	83.9	16.1
		64	51.6	48.4
		63	33.3	66.7

* A complete list of statements appears in Appendix A

Area VI. Functions relating to health education.-- In the area of activities relating to health education there was the widest range of performance; however, there was no activity which was not performed by at least one of the nurses reporting.

Activity 3, relating to the nurses' responsibility for interviewing and inspecting pupils referred by teachers was performed by the total group.

Visual screening (Activity 11a and 11b) was demonstrated to teachers by 98.4% of 60 nurses reporting and to lay groups by 79.2%. P.T.A. members, civic clubs, and Health Councils were among the groups of lay people listed.

Informal teaching of first aid (Activity 5) was performed by 96.9% of the total group. Formal teaching (Activities 16, 12, 13, 7, and 6) was more limited. 69.4% gave formal health instruction. 77.4% of 62 nurses reporting participated in sex education for girls. 25.8% gave instructions in home nursing but only 1.7% taught Red Cross first aid.

Guiding teachers in making classroom observations and inspections, serving as resource persons to teachers, and assisting with the presentation of health materials (Activities 14, 15, 10, 8, and 9) were activities performed by over 88% of the group reporting. The importance of the responsibility for assisting the teachers was evidenced by the comments of some of the respondents:

"They (teachers and administrators) fail to use her (the nurse) as a resource person in matters of health education and instruction in the classroom.... Too many educators still look on the nurse as a person for first aid and to screen pupils for communicable diseases...."

"It is my opinion that they (educators) are usually surprised at the depth of her (the nurse) educational background and fail to use the nurse as a resource person."

Table 18 presents the responses for performance of activities in this area.

Table 16. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to Health Education

Area VI Activity*	(1)	(2)	(3)	(4)
		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
3. interviews with referred pupils...		64	100.0	0.0
11a. visual screening demonstrations...		60	98.4	1.6
5. informal teaching of first aid...		64	96.9	3.1
14. resource person to teachers.....		63	96.8	3.2
15. health material for instruction...		62	93.6	6.4
10. classroom inspection of pupils.....		63	90.5	9.5
8. class presentation of health units		62	88.8	11.2
9. teachers' observations for devis-				
tions.....		62	88.8	11.2
2. pupils returned from illnesses....		61	83.6	16.4
11b. visual screening to lay groups....		24	79.2	20.8
12. sex education for girls.....		62	77.4	22.6
1. check for hygienic practices.....		61	70.5	29.5
16. formal classroom instruction.....		62	69.4	30.6
4. illness absences on health record.		61	62.3	37.7
13. sex education for boys.....		61	32.8	67.2
7. instruction for home nursing.....		62	25.8	74.2
6. Red Cross first aid classes.....		62	1.7	98.3

* A complete list of statements appears in Appendix A

Area VII. Functions relating to health protection and safety.-- The high percentage of performance of activities in this area centered around the nurses' responsibilities toward control of communicable disease. Activities 17, 18, 19, 20, 21, and 22 related to immunizations. Reviewing of health records to determine immunization status of pupils (Activity 17), notifying parents of needed immunizations (Activity 19), notifying parents and pupils of date and time of clinics (Activity 20), organizing and participating in clinics (Activities 21 and 22) was performed by over 80% of the group reporting. However, preparing immunization lists (Activity 18) and recording immunizations on health records (Activity 13) was performed by only 59.7% and 67.2% of the group reporting.

Activity 24 and 25, relating to inspection of suspects for communicable disease was performed by 70% of the group reporting.

Location and inspection of first aid stations (Activity 8) and administering first aid (Activity 7) were activities performed by 93.7% and 88.9% of 63 nurses reporting. The high percentages in the above activities were a contrast to the lower percentage of nurses performing activities relating to emergencies and accidents. Demonstrating proper emergency procedures and explanation of emergency instructions (Activity 5 and Activity 6) were performed by 50.8% and 59.0% of the group reporting but only 37.1% participated

in the preparation of instruction for care of emergencies. Follow-up of accidents (Activity 13) and recommendations regarding accident prevention (Activity 12) were performed by 71.7% and 65.6% of 60 and 61 nurses reporting, while written reports (Activity 10) and review and summary of accident reports (Activity 11) were activities least performed by the group reporting.

Activities relating to sanitation of the school environment (Activities 1 and 3) were performed by 50% of the group. Table 19 depicts these responses.

Table 19. Rank Order of Responses of 64 Nurses Employed by Departments of Health and Per Cent Who Perform or Do Not Perform Functions Relating to Health Protection and Safety

Area VII	(1)	(2)	(3)	(4)
Activity*		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
24. inspection of suspects for communicable disease.....		61	98.4	1.6
22. immunization clinics.....		63	95.2	4.8
8. inspection of first aid stations..		63	93.7	6.3
17. immunization status of pupils....		63	92.1	7.9
20. date, time of immunization clinics		61	90.2	9.8
7. first aid administration.....		63	88.9	11.1
19. parents' notification of needed immunization.....		64	87.5	12.5
2. attention to environmental hazards		62	82.3	17.7
21. plans for immunization clinics....		62	80.7	19.3
25. classroom inspection for communicable disease.....		60	73.4	26.6
13. follow-up for accidents.....		60	71.7	28.3
15. contact parents of ill or injured.		62	71.0	29.0
23. immunizations recorded.....		61	67.2	32.8
16. lunch room facilities and food handling.....		63	66.7	33.3
12. recommendations regarding accident prevention.....		61	65.6	34.4
18. immunization lists.....		62	59.7	40.3
5. explanation of emergency plans....		61	59.0	41.0
9. record of minor, major accidents..		62	58.1	41.9

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Table 19. (concluded)

Area VII		Responses	Per Cent Performing Activity	Per Cent Not Performing Activity
Activity	(1)	(2)	(3)	(4)
6. proper emergency procedures.....		61	50.8	49.2
3. interpretation of sanitation laws.		62	50.0	50.0
1. sanitary inspection of facilities.		63	46.0	54.0
14. transportation of ill or injured..		63	38.1	61.9
4. preparation of instructions for				
care of emergencies.....		62	37.1	62.9
10. written reports of accidents.....		61	31.2	68.8
11. review of accident reports.....		61	8.2	91.8

* A complete list of statements appears in Appendix A

8. Comparison of the Broad Areas of Functions

Within the two groups the activities in each of the seven broad areas of functions were totalled and compared for identifiable differences. (Refer to the master tabulation in Appendix C) Possible totals for a broad area were the number of items multiplied by the number of people reporting: for example, an area with 12 activities, each performed by 25 of the sample group would give a possible total of 300 responses, or an area with 12 activities, each performed by 64 of the sample group would give a possible total of 768 responses. Chi-square was used in testing for differences. Significant differences ($P < .01$) were found in five of the seven areas.

In Area I, administration of the school health program, and Area II, the nurse's role as a faculty member, a number of the activities, relating to policies, the school environment, and individual programs for pupils, were associated with school administration. More of these activities in both of the areas were performed by nurses employed by Boards of Education. These performances reflected the working relationship between these nurses and the administrative personnel.

In Area III, relating to the community, the activities reflected the nurse's role as a liaison between home, school, and community. Both groups performed these activities

extensively; however, nurses in the generalized programs performed more. The significant difference in this area reflects the home and community relationships which nurses in the generalized programs emphasize. Strength in this area is pointed out in the literature, as described in Chapter II, and is also borne out in the comments of the respondents in the sample:

"I believe the nurse's unique position and role as a liaison between the school, home, and community makes her service more valuable and effective for each group and individual served."

"I feel school nursing should be family centered.... I believe I should work in a consultative position to teachers, families, pupils, and the community."

In Area V, counseling and guidance, more of the nurses employed by Boards of Education perform more of the activities than in the other group. This difference reflects an area of concentrated service and the close working relationship with the school administration.

Area VII, relating to health protection and safety, showed the greatest difference between the two groups. A number of the activities in this area dealt with the control of communicable diseases and the promotion of a safe school environment. The responses of the two groups showed the concentration of service to be almost opposite. (Refer to Tables 12 and 19) The activities of the nurses in the schools centered around emergencies and accidents with fewer responses relating to immunizations--with exception of establishing the immunization status of pupils. The activities

of the nurses in the generalized programs were more concentrated in the area of immunization and less on emergencies, accidents, and school environment.

Certain patterns were evident in relation to the concentration of services. Table 20 presents these data.

Table 20. Comparison of the Total Responses from 89 Participants for Performance of the Activities in Each Broad Area of Functions

Areas of Functions (1)	Nurses employed by Boards of Education Number of Responses*		Nurses employed by Departments of Health Number of Responses*		Chi-Square (6)
	Activity Performed (2)	Activity Not Performed (3)	Activity Performed (4)	Activity Not Performed (5)	
I. Administration.....	224	74	483	262	10.413**
II. Faculty Member.....	246	122	525	402	11.394**
III. Community.....	309	34	834	46	8.121**
IV. Health Appraisal....	489	239	1255	546	1.528
V. Counseling and Guidance.....	345	33	849	140	7.242**
VI. Health Education....	295	102	750	266	.029
VII. Health Protection and Safety.....	471	127	1030	517	30.417**

* Responses are listed in numbers reporting for each activity in broad areas-- whether performed or not performed. Totals are based on number of items multiplied by the number of nurses reporting

** Chi-square--significant at the .01 level of confidence, $P < .01$

9. Comparison of the Groups in Relation to Frequency of Performance of Activities

In this comparison the responses of each group were divided into two categories: (1) the number of nurses who performed each activity continuously and often; (2) the number who performed each activity infrequently, seldom, and never. The categories of the two groups were then compared. (Tables 21 - 28) A complete breakdown for percentage of nurses performing each activity and showing frequency of performance is given in Appendix D.

Area I. Functions relating to administration of the school health program.-- The activities performed most frequently by both groups were 6 and 8. Activity 6, relating to informing school personnel of prevalence of disease and control measures, was performed continuously and often by 72% of the nurses employed by Boards of Education (25 reporting) and 67.7% of the nurses employed by Departments of Health (62 reporting). 28% and 32.3% performed this activity monthly or several times a year. Activity 8, relating to noting on health records restriction of activities for pupils was performed continuously and often by 80% and 74.5% of the groups (25 and 61 reporting), and infrequently by 20% and 21.3% respectively. Both activities pertain to safeguarding the health status of the pupils.

Activities 4 and 11 were performed least frequently by the two groups. Only 4% of the nurses employed by Boards

of Education and 1.6% of nurses employed by Departments of Health participated continuously and often in Activity 4, check of the school environment. 28% and 15.6% of the two groups performed this activity infrequently and seldom, and 68% and 82.8% never performed the activity. The significant point in relation to this activity was that whether this activity was performed annually or throughout the year, the nurses participated only to a limited extent.

Activity 11, relating to the nurse's participation in school lunch menu planning, was performed frequently by only 4% of the nurses employed by Boards of Education and was performed infrequently and seldom by only 11.1% of nurses (63 reporting) employed by Departments of Health. The limited participation in this activity was also reflected in the comments from the respondents which indicated a wide diversity of opinions regarding the nurse's responsibility for this activity. Some comments are as follows:

"They (teachers and administrators) seem to resent any suggestions pertaining to the school lunch program or general sanitation and safety."

"I feel a school nurse's responsibilities differ greatly according to the resources of the school. There are many things which should be done by other personnel, if the district has suitably trained people, but because the rural schools sometimes lack specialists, the nurse must wear many hats."

Table 21 presents the responses of the nurses for this area.

Table 21. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to the Administration of the School Health Program

Area I Activity*	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3% (3)	Number Responses (5)	4 and 3% (6)
		2,1, and 0 % (4)		2,1, and 0 % (7)
1. educational programs--community health projects....	25	12.0	63	6.4
2. school health program.....	25	20.0	64	7.8
3. policies--exclusion, re-admission.....	25	60.0	63	36.5
4. check of buildings and grounds.....	25	4.0	64	1.6
5. follow-up for conditions needing improvement.....	23	21.8	61	9.7
6. prevalence of disease and control measures.....	25	72.0	62	67.7
7. list of pupils with defects.....	25	60.0	62	37.1
8. pupil activity restrictions.....	25	80.0	61	75.4
9. modified program for pupils.....	25	40.0	63	20.7
10. educational adjustment for handicapped.....	25	48.0	61	19.7

(concluded on next page)

Table 21. (concluded)

Area I	Nurses employed by Boards of Education		Nurses employed by Departments of Health			
	(2) Number Responses	(3) 4 and 3 %	(5) Number Responses	(6) 4 and 3 %		
Activity	(1)	(4) 2.1, and 0 %	(7) 2.1, and 0 %	(7)		
11. school lunch planning.....	25	4.0	96.0	63	0.0	100.0
12. pupils to receive school lunch.....	25	28.0	72.0	58	31.1	68.9

* A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 4---continuously; 3---often;
 2---infrequently; 1---seldom; 0---not performed

Area II. Functions relating to the nurse's role as a faculty member.-- Activities 13 and 9 were performed most frequently by the two groups. Activity 13, relating to sharing information regarding home factors affecting the pupils, was performed to some degree by 25 and 62 of the nurses reporting. 92% and 90.3% performed this activity continuously and often while 8% and 9.7% performed it infrequently. Activity 9, relating to home visits as follow-up of illness was performed continuously and often by 84% and 80.3% of the groups (25 and 61 reporting); 8% and 22.1% performed this activity infrequently. Both activities pertained to the health status of the pupils, and, it is noted that both groups devoted considerable time to these activities.

In the area of research, the frequent participation of the nurses was more limited. Of the nurses employed by Boards of Education 12.5% (of 24 reporting) participated often in research relating to school nursing (Activity 5) as compared to 1.6% of the nurses employed by Departments of Health (62 reporting). Conversely, 6.4% of the nurses employed in community programs participated often in research necessary for specialized health programs for pupils as compared to 4.2% of nurses employed by Boards of Education (Activity 6). Both groups participated monthly and yearly in research activities: 50% and 35.5% for Activity 5; 58.4% and 32.3% for Activity 6. (Refer to Appendix D)

Since research projects often involve extended periods of time, participation on an infrequent basis was not unlikely.

Although both groups participated in the planning and supervision for nursing field students in school nursing, only to a limited extent, 9.7% of the nurses (62 reporting) in the community programs performed these activities continuously and often as compared to only 4.2% of the school nurses (24 reporting). Since programs for field experience in public health nursing and school nursing are usually carried out through the community agencies, this finding was to have been expected.

Activities relating to planning with faculty on matters pertaining to curriculum, the school health programs, and in-service education (Activities 1, 2, and 3) were performed by a limited number of nurses in both groups. 48% of the school nurses and 64% of the nurses in the community programs never perform these activities. The findings are consistent with the Poe study, which indicated that 32% - 83% of the nurses studied did not participate in evaluation of the school health programs, (30: 201-203) and the Bland study, in which only 54 of 169 nurses participated in evaluation. (4: 67)

Three activities which showed the greatest differences in performance continuously and often--that is, on a daily and weekly basis--were those which related directly to the pupils themselves. Activity 8, supervision of ill, injured, or isolated pupils at school, was performed by 88% of the

school nurses as compared to 44.3% of nurses (61 reporting) in the community health programs. Activity 11, investigation of pupils absences, was performed continuously and often by 72% and 37% of the two groups respectively (25 and 62 reporting). Activity 12, inspection of new entrants in school when physician or health records are not available, was performed daily and weekly by 60% and 19.6% of the two groups reporting (25 and 61). For the latter group the three activities were performed monthly or several times a year by 29.5%, 40.4% and 19.8% respectively. Comments from the respondents relative to these activities are as follows:

"When one is trying to carry on a generalized program as well as one can with the available facilities, one cannot put in much time in the schools and must rely upon the cooperation of teachers and lay committees."

"Since I have many duties besides school nursing, many of these (activities) are impossible to do because of time or personnel."

Table 22 presents the comparison of responses.

Table 22. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to the Nurse's Role as a Faculty Member

Area II	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	(1)	(2)	(3)	(4)	(5)	(6)
Activity*	Number Responses	4 and 3%**	2.1. 0 %	Number Responses	4 and 3 %	2.1. 0 %
1. curriculum for health instruction.....	25	12.0	88.0	64	1.6	98.4
2. safety programs.....	25	12.0	88.0	62	3.2	96.8
3. faculty in-service program	25	12.0	88.0	62	3.2	96.8
4. committees on health program.....	25	12.0	88.0	61	6.6	93.4
5. research in school nursing	24	12.5	87.5	62	1.6	98.4
6. research for specialized programs.....	24	4.2	95.8	62	6.4	93.6
7. supervision of rest programs.....	24	12.5	87.5	62	1.6	98.4
8. supervision--ill, injured pupils.....	25	88.0	12.0	61	44.3	55.7
9. home visits as follow-up for ill.....	25	84.0	16.0	61	80.3	19.7
10. physician or agency contact.....	25	80.0	20.0	61	72.0	28.0
11. investigation of pupil absences.....	25	72.0	28.0	62	37.0	63.0
12. inspection of new entrants	25	60.0	40.0	61	19.6	80.4

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Table 22. (concluded)

Area II	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	Number Responses	4 and 3 %	2,1, 0 %	Number Responses	4 and 3 %	2,1, 0 %
Activity	(2)	(3)	(4)	(5)	(6)	(7)
13. influential home factors..	25	92.0	8.0	62	90.3	9.7
14. student field experience..	24	4.2	95.8	62	9.7	90.3
15. advisor for nursing students.....	24	4.2	95.8	62	9.7	90.3

* A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 4--continuously; 3--often;
 2--infrequently; 1--seldom; 0--not performed

Area III. Functions relating to the community.-- Since the activities in this area reflected the interaction between the school, the home, and the community, it was expected that most of them would have been performed frequently. The data confirmed this expectation.

Essentially there was little difference in the two groups. The greatest differences in the numbers of nurses performing each activity continuously and often was found in Activities 1, 4, and 10.

Activity 1, relating to informing parents of pre-school pupils about the health services, was performed continuously and often by 24% of school nurses as compared to 9.6% of nurses in community programs (63 reporting). 80% and 93.7% of the groups performed this activity; 84.1% of nurses in the community programs carried it out on a monthly and yearly basis. (Refer to Appendix D) Since meeting with parents of pre-school pupils is usually planned on an annual basis, it is understandable that nurses in a generalized program would perform this activity on an annual basis. Nurses associated continuously with the school personnel would have greater opportunity for contacts which came through the school administration.

Activity 4, relating to participating in health programs originating in the school and implemented in the community, was performed weekly or more often by 34.8% of nurses employed by Boards of Education (23 reporting) and 19.3% of

nurses in community programs (62 reporting). However, 56.5% and 61.4% of the two groups performed this activity on a monthly and yearly basis.

Activity 10 related to instruction for parents of ill pupils. 92% of the nurses employed by Boards of Education performed this activity continuously and often as compared to 76.7% of nurses in community programs. 96.9% of the nurses in the agencies performed this activity. (Refer to Appendix D)

Table 23 presents these responses.

Table 23. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to the Community

Area III	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3% (3)	Number Responses (5)	4 and 3% (6)
Activity* (1)				
1. information of health services to parents.....	25	24.0	63	9.6
2. interpretation of health program.....	24	25.0	63	23.8
3. interpretation of health and social needs.....	24	20.8	64	26.5
4. programs implemented in the community.....	23	34.8	62	19.3
5. family's use of health resources.....	25	96.0	64	89.0
6. information to parents regarding contact diseases..	24	41.6	63	30.1
7. referrals to specialists..	25	32.0	61	31.1
8. referrals to agencies.....	25	52.0	62	59.6
9. action on referrals to agencies.....	24	45.8	62	53.2
10. information to parents of ill pupils.....	25	92.0	64	76.7
11. notices of defects to parents.....	25	96.0	64	82.8

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Table 23. (concluded)

Area III	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	Number Responses (2)	4 and 3% (3)	2, 1, and 0% (4)	Number Responses (5)	4 and 3% (6)	2, 1, and 0% (7)
Activity (1)						
12. action on correction of defects.....	25	72.0	28.0	63	74.6	25.4
13. follow-up of tuberculin reactors.....	25	36.0	64.0	62	48.4	51.6
14. liaison between school and parents.....	24	75.0	25.0	63	77.8	22.2

* A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

Area IV. Functions relating to health appraisal.-- It was recognized that many of the activities in this area were of the nature that performances continuously and often were not indices of the adequacy of the health services. For example, health examinations, screening tests, and referrals made following screening tests are activities which might vary with the administrative structures, geographic areas, and the nature of the population involved. Consequently, there was a wide variation in the frequency of performance of activities for the two groups.

Responses to Activities 6 and 7, relating to dental inspections, showed 34.5% and 35.9% more of the nurses in the school systems performed these activities daily and weekly than did the nurses in the community programs. Dental inspections as a part of a general check of pupils, however, was performed by 84% and 67.1% of both groups. Activity 8, assisting with dental inspections, was performed infrequently and seldom by 28% and 17.5% of the groups; it was never performed by over 70% of the total group. (Refer to Appendix D)

Activities 18, 19, and 20, related to tuberculosis control. All three activities were performed continuously and often by a higher percent of the nurses (62 reporting) who were employed by Departments of Health. 32.3% of these nurses performed tuberculin testing (Activity 18) on a continuous and often basis, while only 20% of the nurses in

the school systems performed this activity on a monthly or yearly basis. Comments relative to this area were as follows:

"Many of the activities occur at certain times of the year.tuberculin follow-up after specialty clinics, etc. Tuberculin testing and immunizations I believe are fairly well done."

Activities 14, 15, 16, and 17 related to scheduling and performing audiometer testing and following up recommendations for correction. Over 50% of both groups never participated in the scheduling for audiometer testing; however, 24% of nurses in the school systems performed retesting continuously and often as compared to 3.2% of nurses in the community programs. There was little difference in the follow-up services given by both groups. One comment was as follows:

"All of them (correction for hearing loss) are followed up, however, they occur at certain times of the year--following audiometric testing and otology clinics which occurs annually for each school."

Activities 11, 12, and 13 related to visual screening. Initial visual screening (Activity 11) were performed continuously and often by 40% of nurses in the school system (20 reporting) as compared to 17.2% of nurses in the community health programs. Rescreening and follow-up for correction of defects (Activity 12 and 13) was performed continuously and often by over 74% of both groups (25, 61, and 63 reporting).

Table 24 presents this comparison of responses.

Table 24. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to Health Appraisal

Area IV	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3 %** (3)	Number Responses (5)	4 and 3 % (6)
Activity* (1)		2, 1, and 0 % (4)		2, 1, and 0 % (7)
1. parent interviews for health histories.....	24	58.4	61	60.6
2a. interpretation of health histories to parents.....	22	72.7	51	47.0
2b. interpretation of health histories to teachers.....	25	88.0	62	59.6
3. information on health record card.....	25	72.0	63	41.2
4. organization of health examination programs.....	25	36.0	64	10.9
5. health examinations.....	25	36.0	62	19.3
6. initial dental inspections	25	44.0	63	9.5
7. dental inspection in general check.....	25	64.0	64	28.1
8. assist with dental inspections.....	25	0.0	63	0.0
9. follow-up for dental recommendations.....	24	41.7	60	21.7
10. periodic weights and measurements.....	25	36.0	64	6.2

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Table 24. (continued)

Area IV	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	(1)	(2)	(3)	(4)	(5)	(6)
Activity	Number Responses	4 and 3 %	2.1. and 0 %	Number Responses	4 and 3 %	2.1. and 0 %
11. initial visual screening..	20	40.0	60.0	64	17.2	82.8
12. visual rescreening.....	24	67.5	12.5	61	88.5	11.5
13. follow-up--visual defects.	25	84.0	16.0	63	74.6	25.4
14. group audiometer testing..	24	12.5	87.5	61	11.5	88.5
15. audiometer retests.....	25	24.0	76.0	63	3.2	96.8
16. referrals--hearing loss....	25	32.0	68.0	61	9.8	90.2
17. follow-up--hearing loss....	25	48.0	52.0	62	37.1	62.9
18. tuberculin testing.....	25	0.0	100.0	62	32.3	67.7
19. referrals to tuberculosis clinic.....	24	25.0	75.0	62	30.6	69.4
20. follow-up--tuberculosis clinic.....	24	41.6	58.4	62	54.8	45.2
21. referrals to Child Guidance Clinics.....	24	29.2	70.8	62	25.7	74.3
22. referrals to school Guidance Committee.....	24	20.8	79.2	63	17.5	82.5
23. follow-up of referrals to Guidance Clinics.....	25	32.0	68.0	60	31.6	68.4
24. referrals to Crippled Childrens' Service.....	24	16.7	83.3	62	19.2	80.8
25. follow-up--Crippled Childrens' Service.....	25	24.0	76.0	62	25.7	74.3

(concluded on next page)

Table 24. (concluded)

Area IV	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3 % (3)	Number Responses (5)	4 and 3 % (6)
Activity	(1)	(4)	(7)	(7)
26. referrals to Cardiac Clinic.....	23	4.3	63	11.1
27. follow-up Cardiac Clinic..	23	8.6	62	14.5
28. test results--health record.....	25	68.0	60	48.2
				51.8

A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 4--continuously; 3--often;
 2--infrequently; 1--seldom; 0--not performed

Area V. Functions relating to counseling and guidance.--

The responses in this area showed that more nurses in both groups performed these activities continuously and often than in the other areas except III, Functions Relating to the Community.

Activities which showed the greatest variances were those relating to the nurses' role as health counselors (Activities 13, 14, and 15). Activity 13, health counseling to pupils, was performed daily and weekly by 95.8% of school nurses (24 reporting) and 56.2% of nurses in the community program (64 reporting). 37.6% of the latter group performed the activity on the basis of monthly or several times a year. In a like manner, while health counseling to parents and school personnel (Activity 14 and 15) was performed continuously and often by 83.4% and 87.5% of the nurses in the school systems as compared to 51.5% and 52.4% for the nurses in the community program, 36.5% and 39.1% of the latter group performed the activities on a monthly and yearly basis.

There was also considerable variation in the responses for Activities 1, 2, 3, and 4, which related to directing attention of parents and teachers to deviations from the normal. All four activities were performed daily and weekly by 88%, 84%, 76% and 64% of school nurses and 50.8%, 55.5%, 48.4% and 43.5% of nurses in the community programs (63 and 62 reporting). These activities are performed by nurses in

the community programs more on a monthly and yearly basis.

The activity least performed by both groups related to group conferences with students having the same health problem (Activity 10). Only 12.5% and 9.3% of the two groups performed this activity continuously and often; 29.2% and 42.2% performed this activity infrequently and seldom.

Table 25 presents the comparison of these responses.

Table 25. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to Counseling and Guidance

Area V	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	Number Responses (2)	4 and 3%** (3)	2,1, 0% (4)	Number Responses (5)	4 and 3% (6)	2,1, 0% (7)
Activity*	(1)	(3)	(4)	(5)	(6)	(7)
1. teachers' attention to deviations.....	25	88.0	12.0	63	50.8	49.2
2. parents' attention to deviations.....	25	84.0	16.0	63	55.5	44.5
3. teachers' attention to mental health deviations...	25	76.0	24.0	62	48.4	51.6
4. parents' attention to mental health deviations...	25	64.0	36.0	62	43.5	56.5
5. deviations on cumulative record.....	25	72.0	28.0	62	45.1	54.9
6. interpretation of physician recommendations.....	24	83.3	16.7	64	68.7	31.3
7. interviews with pupils-- treatment.....	24	79.2	20.8	64	56.2	43.8
8. interviews with parents regarding pupil's health status.....	24	70.9	29.1	64	64.0	36.0
9a. group conferences with teachers.....	15	60.0	40.0	43	34.8	65.2
9b. teacher-nurse conferences..	24	87.5	12.5	61	77.0	23.0

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Area VI. Functions relating to health education.-- The activities in this area were examined in relation to Area II, Functions Relating to the Nurse's Role as a Faculty Member. A higher percentage of nurses in the school system performed these activities on a daily and weekly basis than they did the activities of Area II. Conversely, a higher percentage of nurses in the community programs performed activities of Area II on a daily and weekly basis than they did the activities in Area VI. A high percentage of the latter group performed the activities in both areas on a monthly and yearly basis.

Activity 3, related to interviews with pupils referred by teachers. 76.6% of nurses in community programs and 95.8% of nurses in the school systems (24 reporting) performed this activity daily and weekly.

Activity 2, relating to interviews with pupils following absences from illness, was performed continuously and often by 83.4% of nurses in school systems (24 reporting) and 41% of nurses (61 reporting) in the community programs. 16.4% of the latter group did not perform this activity at all. (Refer to Appendix D)

Recording causes of illness absences on health record cards (Activity 4) was performed daily and weekly by 62.5% of school nurses as compared to 22.9% of nurses (61 reporting) in the community programs. However, 39.4% of the nurses in the latter program performed these activities on a basis

of monthly and several times a year.

Activity 5, referred to incidental teaching of first aid. 79.2% of nurses in the school systems (24 reporting) performed this activity daily and weekly, while 53.2% of the other group performed this activity on the basis of monthly and several times a year.

Guiding teachers in observations for deviation from normal (Activity 9) and for recognition of communicable diseases (Activity 10) was performed continuously and often by 69.5% (23 reporting) and 52% of the nurses employed by Boards of Education. 41.9% and 31.8% (62 and 63 reporting) of the nurses in community programs performed these activities continuously and often; however, 46.9% and 58.7% performed them on a basis of monthly and several times per year.

The responses relating to formal classroom instruction (Activities 6, 7, 12, 13, and 16), revealed that these activities were performed by only a limited number of nurses reporting. Activity 12, sex education for girls, was performed continuously and often by less than 12% of the two groups (24 and 62 reporting) but was done by 58.3% and 66.1% respectively on a basis of monthly and several times a year. Activity 13, sex education for boys was performed infrequently and seldom by 17.5% and 32.8% of the groups and was not performed at all by 82.5% and 67.2% of the groups reporting (21 and 61). Red Cross first aid classes (Activity 6) were given by only 12.5% of nurses in the school systems and 1.7% of nurses in the community program, and these were given

only infrequently. Comments reflecting the nurses' opinions regarding formal teaching are as follows:

"The current trend in many districts is to make the school nurse a consultant on a higher level. I feel the daily contacts with children and parents do more for public education than a strictly classroom type of nursing education."

"I personally feel that a nurse can do much both in assisting teachers with preparation for teaching health in the classroom and with making teachers' aware of the level of health in their particular class."

Table 26 presents the comparison of the responses for this area.

Table 26. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to Health Education

Area VI	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3%** (3)	4 and 3% (4)	4 and 3% (6)
Activity*	(1)	(3)	(4)	(6)
1. check for hygienic practices.....	23	43.5	56.5	61
2. pupils returned from illnesses.....	24	83.4	16.6	61
3. interviews with referred pupils.....	24	95.8	4.2	64
4. illness absences on health record.....	24	62.5	37.5	61
5. informal teaching of first aid.....	24	79.2	20.8	64
6. Red Cross first aid classes.....	24	4.2	95.8	62
7. instruction in home nursing.....	23	6.7	91.3	62
8. class presentation of health units.....	25	32.0	68.0	62
9. teacher's observation for deviations.....	23	69.5	30.5	62
10. classroom inspection of pupils.....	25	52.0	48.0	63

(concluded on next page)

Table 26. (concluded)

Area VI	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3 % (3)	Number Responses (5)	4 and 3 % (6)
Activity (1)				2,1. and 0 % (7)
11a. visual screening demon- strations for teachers..	23	26.2	60	18.3
11b. visual screening for lay groups.....	13	15.4	24	6.3
12. sex education for girls.	24	12.5	62	11.3
13. sex education for boys..	23	0.0	61	0.0
14. resource person to teachers.....	25	72.0	63	52.4
15. health material for instruction.....	25	56.0	62	43.5
16. formal classroom instruction.....	24	20.8	62	14.4
				81.7
				91.7
				88.7
				100.0
				47.6
				56.5
				65.6

* A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 4--continuously; 3--often;
 2--infrequently; 1--seldom; 0--not performed

Area VII. Functions relating to health protection and safety.-- The activities in this area were related to a considerable extent to activities in Area IV, Functions Relating to Health Appraisal. Here again, many of the activities were carried out in accordance with administrative policies and tended to be performed annually rather than on a continuous basis. As a result, the percentage of nurses performing these activities continuously and often were relatively low. (Refer to Appendix D)

One activity (24) relating to inspection of suspects for communicable diseases, was performed daily and weekly by 95.6% and 70.4% of the groups respectively (23 and 61 reporting). Activity 15, relating to contacting parents of ill and injured pupils, was performed daily and weekly by 87.5% of nurses in school systems (24 reporting) but by only 35.4% of nurses in the community programs (62 reporting).

The greatest differences in percentages of nurses performing activities were found in Activities 11, 12, and 13, which pertained to accidents and Activities 14 and 15 which pertained to transporting ill or injured pupils and contacting parents of ill or injured pupils. Activity 12, pertaining to recommendations directed toward avoiding accidents, was performed continuously and often by 50% of nurses in school systems (24 reporting) as compared to 6.6% of nurses in community programs (61 reporting). 8.3% and 34.4% of the groups respectively did not perform the activity at all.

Activity 14, pertaining to transporting ill or injured pupils, was performed daily and weekly by 62.5% of the school nurses (24 reporting) and 3.2% of nurses in the community programs (63 reporting). 34.7% of the latter group performed this activity infrequently and seldom.

Activities 17 through 23 pertained to the immunization programs. These activities were consistently performed by a high percentage of both groups, but, as was to have been expected, were performed by a higher percentage of the groups on a monthly and yearly basis. Activity 22, participation in immunization clinics was performed continuously and often by nurses in the community programs 20.6% (63 reporting) as compared to 13% of nurses in the school systems (23 reporting).

Table 27 presents a comparison of these responses.

Table 27. A Percentage Comparison of the Responses of the Sample for Performance Continuously and Often or Infrequently, Seldom and Never of Functions Relating to Health Protection and Safety

Area VII	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Number Responses (2)	4 and 3%* (3)	2, 1, and 0% (4)	Number Responses (5)
Activity* (1)				4 and 3% (6)
1. sanitary inspection of facilities.....	25	20.0	80.0	63
2. attention to environmental hazards.....	25	8.0	92.0	62
3. interpretation of sanitation laws.....	24	16.7	83.3	62
4. preparation of instruction --emergencies.....	24	37.5	62.5	62
5. explanation of emergency plans.....	24	33.4	66.6	61
6. proper emergency procedures.....	25	36.0	64.0	61
7. first aid administration..	25	84.0	16.0	63
8. inspection of first-aid stations.....	23	69.6	30.4	63
9. record of minor and major accidents.....	24	66.6	33.4	62
10. written reports of accidents.....	24	29.1	70.9	61
11. review of accident reports	24	33.3	66.7	61

(continued on next page)

Table 27. (continued)

Area VII	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	Number Responses (2)	4 and 3 % (3)	2, 1, 0 % (4)	Number Responses (5)	4 and 3 % (6)	2, 1, 0 % (7)
Activity (1)						
12. recommendations--accident prevention.....	24	50.0	50.0	61	6.6	93.4
13. follow-up for accidents...	24	54.1	45.9	60	8.3	91.7
14. transportation of ill or injured.....	24	62.5	37.5	63	3.2	96.8
15. contact parents of ill or injured.....	24	87.5	12.5	62	35.4	64.6
16. lunch room facilities and food handling.....	22	40.8	59.2	63	12.6	87.4
17. immunization status of pupils.....	24	45.9	54.1	63	34.9	65.1
18. immunization lists.....	24	25.0	75.0	62	19.3	80.7
19. parents' notification of needed immunizations.....	24	25.0	75.0	64	28.0	72.0
20. date and time of immunization clinics	24	25.0	75.0	61	27.9	72.1
21. plans for immunization clinics.....	23	13.0	87.0	62	19.3	80.7
22. immunization clinics.....	23	13.0	87.0	63	20.6	79.4
23. immunizations recorded.....	24	41.7	58.3	61	26.3	73.7

(concluded on next page)

Table 27. (concluded)

Area VII	Nurses employed by Boards of Education			Nurses employed by Departments of Health		
	Number Responses (2)	4 and 3 % (3)	2,1, and 0 % (4)	Number Responses (5)	4 and 3 % (6)	2,1, and 0 % (7)
Activity (1)						
24. inspection of suspects for communicable disease.....	23	95.6	4.4	61	70.4	19.6
25. classroom inspection for communicable disease.....	24	50.0	50.0	60	20.0	80.0

* A complete list of statements appears in Appendix A
 ** Activities checked according to the code: 1--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

10. Comparison of the Broad Areas of Functions

Table 28 presents a percentage comparison of the responses from nurses performing the activities in each of the seven broad areas of functions, with attention directed to whether the nurses performed the activities continuously and often or infrequently, seldom or never. The master tabulation in Appendix C shows the responses for each activity and the totals for each broad area. As was explained previously, the total number of responses possible for an area is the number of activities multiplied by the number of nurses in the sample. Categories (4-3) and (2-1-0) were the combined totals based on where the activities were checked on the scale. Percentages, based on the total number of responses, were calculated for each category for the two groups.

Areas I and II, reveal little difference between the two groups as to the frequency of performance of activities. The percentages for nurses in the school system is slightly higher for performance daily and weekly. These findings are consistent with those of Table 20, in which there were significant differences between the two groups as to activities performed and not performed.

Area IV also reveals little difference. Since this area relates directly to the health status of the pupils with considerable attention to annual screening procedures

for identification of defects and the follow-up for correction, the findings are not unexpected. They are also consistent with those in Table 20, which revealed no identifiable differences between the groups as to the performance of activities in this area.

Area III revealed the least difference between the groups. Although findings (Table 20) indicated that more nurses in the generalized programs performed these activities relating to the community than did those in the school systems, it is noteworthy that both groups perform these activities in a fairly consistent pattern.

Areas V and VII reveal considerable difference between the groups, with nurses in the school system performing more of the activities on a daily and weekly basis. These findings are also consistent with those of Table 20.

Findings in Area VI furnish a contrast for the groups. Table 20 reveals that there was no measurable difference between the groups as to the performance of these activities. Yet the percentage of nurses in the school systems is considerably higher in performance of activities on a daily and weekly basis than for the nurses in the generalized programs. These findings reflect the statements in the literature and the comments of the respondents of the nurses in this study that nurses in the generalized programs must of necessity allocate their time in accordance to the priority of needs. For this group activities in this area were performed more on the basis of monthly and

several times a year.

Findings from this comparison further support hypothesis 1, that there would be differences between the groups as to areas of concentration of services.

Table 28. Percentage Comparison of the Responses of 89 Participants for the Seven Broad Areas of Functions

Area	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Per Cent of Responses		Per Cent of Responses	
	4 and 3*	2,1, and 0	4 and 3	2,1, and 0
(1)	(2)	(3)	(4)	(5)
I. Administration..	37.6	62.4	25.9	74.1
II. Faculty Member..	37.5	62.5	25.7	74.3
III. Community.....	53.3	46.7	50.3	49.7
IV. Health				
Appraisal.....	38.7	61.3	29.4	70.6
V. Counseling and Guidance.....	69.0	31.0	47.9	52.1
VI. Health Education	44.1	55.9	26.3	73.7
VII. Health Pro- tection and Safety.....	42.5	57.5	20.7	79.3

* Combinations are based upon the frequency of performance: for example, activities performed (4-3) continuously and often were totaled; (2-1-0) activities performed infrequently, seldom, or never were totaled.

11. Analysis of Nurses' Perceptions of Importance of Selected Activities

Compilation of activities for ranking.-- In Part III of the questionnaire, an attempt was made to identify selected

aspects of the nurses' perceptions of the importance of certain activities and to compare whether or not the activities perceived as important were actually performed.

Twenty activities were selected to be ranked by the nurses. Ten of the activities chosen were based on the Grossman study (15: 57) and formulated from a check list of items taken from a group of statements which had been rated as to importance by an expert panel in a survey conducted by National Organization for Public Health Nursing. The other ten activities were selected on the basis of the recommended activities by the School Nurses Branch of the American Nurses' Association.

A score for each item was arrived at by an arbitrary system in which points were given to the rank each item received--4 if "extremely important," to 0 for an item considered "not important." The scores themselves have no absolute meaning, but they do have significance among themselves.

Responses.-- The responses of the nurses in the sample were varied. Activities 1, 4, 5, and 11 were ranked by nurses employed by Boards of Education as having considerable or moderate importance; activity 14 was ranked as having little importance. Activities 1 and 5 were ranked by nurses employed by Departments of Health as having considerable or moderate importance; activities 14 and 18 were ranked as having little or no importance. These rankings were con-

sistent with the findings of the Grossman study. (15: 123)

Further examination of these data revealed that activities which the nurses in both groups perceived as having most importance were those relating to the health status of the pupils and finding and correcting defects--activities 1, 7, 12, 10, and 16.

Both groups perceived their role as health counselors to pupils (Activity 16) as having a large amount of importance; but serving as a health counselor to school personnel (Activity 17) was not ranked as high by the group employed in the community programs.

Serving as a resource person in matters pertaining to health education and participating in classroom instruction with demonstrations was ranked as having considerable importance by both groups (Activity 2 and 5); however, teaching first aid was ranked of little importance (Activity 14). Both groups also perceived serving on curriculum committees (Activity 6) as having little importance.

Tables 29 and 30 present the items as they were ranked by the two groups.

Table 29. A Tabulation and Mean Scores of 20 Selected Nursing Activities Ranked as to Importance by 25 Nurses Employed by Boards of Education

Activity ⁺	Mean Score	Total of Sample Selecting each Rank [*]				
		4	3	2	1	0
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. conferences with teachers	3.87	21	3	0	0	0
7. correction of defects....	3.87	21	3	0	0	0
12. visual rescreening.....	3.79	21	2	0	1	0
16. health counselor to pupils.....	3.79	19	5	0	0	0
10. data on health record....	3.62	17	5	2	0	0
3. studies in health educational programs.....	3.38	12	5	4	0	0
8. health and social needs..	3.37	15	6	1	1	1
4. home visits as follow-up.	3.30	12	6	5	0	0
2. resource person to teachers.....	3.17	12	4	6	1	0
17. guidance for teachers....	3.16	13	4	5	2	0
20. modified program for pupils.....	3.16	12	6	4	2	0
19. health counselor to school personnel.....	3.08	12	5	4	3	0
5. classroom health instruction.....	3.00	10	5	8	1	0
11. first aid equipment.....	3.00	13	4	3	4	0
13. first aid administration.	2.91	13	1	6	3	1
15. health materials.....	2.41	5	8	5	4	2
18. transportation for ill or injured pupils.....	2.16	5	4	8	4	3
6. curriculum committees....	1.54	1	6	6	3	8
14. first aid classes.....	1.45	2	3	5	5	7
9. school lunch menus.....	1.17	0	2	7	7	7

* Rankings based on following scale: 4--extreme importance; 3--considerable importance; 2--medium importance; 1--some importance; 0--no importance

+ Complete statement is found in Appendix A

Table 30. A Tabulation and Mean Scores of 20 Selected Nursing Activities Ranked as to Importance by 64 Nurses Employed by Departments of Health

Activity* (1)	Mean Score (2)	Total of Sample Selecting each Rank*				
		4 (3)	3 (4)	2 (5)	1 (6)	0 (7)
1. conferences with teachers	3.71	47	16	1	0	0
7. correction of defects....	3.65	45	15	2	1	0
16. health counselor to pupils.....	3.48	40	16	7	1	0
12. visual rescreening.....	3.47	40	14	8	1	0
8. health and social needs..	3.42	37	20	4	3	0
2. resource person to teachers.....	3.23	32	17	13	2	0
17. guidance for teachers....	3.20	34	15	9	3	2
4. home visits as follow-up.	3.10	28	18	15	3	0
10. data on health record....	3.04	25	20	12	5	0
5. classroom health instruction.....	2.93	21	22	15	5	0
20. modified programs for pupils.....	2.71	21	16	18	6	3
15. health materials.....	2.60	10	29	18	4	3
19. health counselor to school personnel.....	2.48	22	10	14	13	5
3. studies in health educa- tional programs.....	2.41	9	19	24	9	1
13. first aid administration.	1.77	12	8	8	22	12
6. curriculum committees....	1.72	7	10	16	15	13
11. first aid equipment.....	1.65	7	7	17	18	12
14. first aid classes.....	1.57	4	11	14	16	14
9. school lunch menus.....	1.53	1	15	12	22	12
18. transportation for ill or injured pupils.....	0.53	1	2	4	15	40

* Rankings based on following scale: 4--extreme importance; 3--considerable importance; 2--medium importance; 1--some importance; 0--no importance

+ Complete statement is found in Appendix A

Comparison of rankings with actual performance.-- The responses were then compared as to whether or not the nurses performed the activities which they perceived as considerably important.

Of 14 activities ranked considerably important (with mean scores of 3.00 or above) 9 were performed continuously and often by over 40% of nurses employed by Boards of Education. Activities 3 and 8 were performed continuously and often by less than 20% of the group, but they were performed by over 60% of the group reporting. (Refer to Tables 8, 23)

Of 9 activities ranked considerably important (with mean scores of 3.00 or above), all were performed continuously or often by over 20% of nurses employed by Departments of Health. Eight of these activities were related to safeguarding the health of the pupils. Activity 8, relating to interpreting health and social needs and resources to school and community groups was ranked the same by both groups but was performed continuously and often by a larger number of nurses reporting in the latter group. (Refer to Tables 15, 23)

Activity 6, serving on curriculum committees was ranked by both groups as having little importance; only 52% and 36% of the groups reporting performed this activity. (Refer to Tables 7, 14, 22)

Activity 18, transporting of ill or injured pupils, was perceived by nurses employed by Boards of Education as moderately important; over 95% of the group reporting performed

this activity. Nurses who served the schools in community programs perceived this activity as having no importance, yet 38.1% performed this activity. (Refer to Tables 12, 19, 27)

As might have been expected, the importance of perceptions and the performance varied from nurse to nurse and showed wide differences in scope and content.

12. Analysis of Responses of Group in the Separate Category

The responses of 4 of the questionnaires returned were analyzed apart from the major group since they imparted certain data that could not be tabulated with that of the major group.

Two of the nurses were employed jointly by Boards of Education and Departments of Health. One was employed by a local religious organization. One was employed by the Federal government. Two were administratively responsible to a school administrator; one, to a public health nurse supervisor and school administrator; one, to a public health nurse supervisor.

For three nurses, type and number of schools, average time spent per week, and pupil load were consistent with responses made by nurses employed by Boards of Education. The responses of one were consistent with nurses employed by Departments of Health.

Educational background and qualifications for the four

were essentially the same as those described for the major groups.

Responses to the performance of activities for two of the nurses patterned the responses of the school nurses, for two, the nurses in the community programs. The greatest variance noted was for the nurse employed by the religious organization. Her responses indicated that fewer activities were performed in the area of Health Appraisal and Community, and more activities were performed continuously and often in Area II, Nurse's Role as a Faculty Member and Area VII, Health Protection and Safety, than for the other nurses.

Perceptions of the importance of the selected activities were consistent with the findings of the major group.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

1. Summary of the Findings

The activities of 93 nurses who serve the elementary and secondary schools in 29 counties of Oregon were studied by the questionnaire method in an effort to determine the following: (1) the role and the functions of the nurses; (2) the scope of the activities and the areas of concentration of services; (3) whether or not the activities differed with the employing agencies; (4) the nurses' perceptions of the importance of selected activities; and (5) whether or not activities performed were varied in accordance with the nurses' educational preparation.

Analysis of the responses of 89 nurses--25 employed by Boards of Education and 64 employed by Departments of Health--comprised the body of the report. The responses of four nurses were reported in a separate category. Data provided information to answer the questions raised and to substantiate or refute the hypotheses which had been proposed.

Question 1.-- What is the role and what are the functions of the nurses in the elementary and secondary schools in Oregon?

Determination of the role of the nurses in the schools

was based upon information obtained regarding the areas in which services were concentrated, the types of service rendered, and the nurses' perceptions of the importance of selected activities. The variety of responses indicating performance of activities in the broad areas of functions suggests that the role of the nurse is fluid, which is as it should be, and varies with the different frameworks within which the nurses function.

The findings on the basis of lower percentages of responses by the total group relative to performance of administrative and faculty activities and the varying perceptions as to the importance of these activities, were indicative of doubt as to role identification in these areas. In the areas of health education and counseling and guidance, the role as health counselor was more clearly recognized. These activities, as well as assistance to teachers in observations, procurement of health materials, and conferences were performed by a high percentage of the group. Also the activities were perceived by the nurses as having importance. Only 60% of the total group, however, gave formal classroom instruction.

In the area relating to the community, the activities were performed extensively by a high percentage of the total group. These findings indicate that nurses in both groups are cognizant of their role as a liaison between the home, school, and community. The findings also point out the

strengths of the nurses in the generalized programs with their community ties and reflect the philosophy regarding family-centered service. The performance of these activities are consistent with the findings of the Poe and Bland studies. (4: 165; 30: 211)

Of the 125 activities selected as a basis for determining the scope of the nurses' work, each was performed to some degree by some of the nurses. All activities were performed by five or more of the sample. Although no activity was reported as being performed by 100% by the full sample, it should be noted that five of the activities were reported as being performed by 87 and 88 nurses. (Tables 6, 13, 7, 14, 8, 15, 10, 17, 11, 18)

The variety of responses for activities indicate a wide range of performance. The frequency with which activities were performed also indicates a great variety in the type of services rendered. These findings are consistent with those reported in studies conducted by Poe (30: 209), Bland (4: 134), and Neilson (26: 420-456).

Question 2.-- What are the areas of service in which the efforts of the nurses in the schools are concentrated?

The findings indicate that services are concentrated primarily in the areas of safeguarding the health status of the pupils; finding and correcting defects and prevention and control of illnesses and diseases. (Areas IV, VII)

In the area of health appraisal (IV), both groups per-

formed many of the activities on a daily and weekly basis. A higher percentage of the nurses in the community programs performed activities relating to referral and follow-up in correction of defects than do nurses in specialized programs. This reflects a close working relationship between the health department nurses and other agencies in the community. Conversely, health appraisal activities implemented in the immediate school environment (initial visual screening, periodic weighing and measuring, dental inspections) were performed more frequently by a higher percentage of nurses employed by Boards of Education.

In the area of health protection and safety (VII), both groups devoted considerable time to immunizations. A higher percentage of the nurses in the generalized programs actively participated in the immunization clinics. A higher percentage of the nurses in the specialized programs performed activities relating to emergencies and accidents in the immediate school environment.

Services are also concentrated in the areas of counseling and guidance and health education (V, VI). In both areas the highest percentage of performances related to pupils' illnesses and to directing attention to and correction of defects. Consistent high percentages of performance of activities in areas I, II, and III were also for those relating to the health status of the pupils.

Nurses also perceived that the selected activities

relating to these areas of concentrated services were of considerable importance.

Question 3.-- What are the administrative structures within which the nurses work?

For the total sample of 93 nurses, 26 were administratively responsible to School Administrators and the local school districts which vary as to type with the different counties. 64 nurses were administratively responsible to Departments of Health and served the schools as a part of public health nursing service. Two nurses worked in programs which were jointly administered by Boards of Education and Departments of Health. One was administratively responsible to a local board of a religious organization.

a. Do the areas of concentration of service differ with the various administrative structures?

The findings indicate that the areas of concentration of service do differ for five of the broad areas of functions. (Refer to Table 20) On the whole, more of the activities were performed by nurses employed by Boards of Education than by nurses employed by Departments of Health. These findings are consistent with the Neilson and Poe studies. (26: 458; 30: 210) While both groups performed more activities relating to safeguarding the health status of the pupils, the range of activities performed by the former group was greater, with the exception of activities relating to the community, to health protection and safety, and

to health education. These findings support hypothesis 1, that there would be differences between the areas in which services are concentrated for the two groups. (Chapter I)

Data presented in Table 28 also point to the areas of concentrated services and show that activities performed most frequently by both groups were those relating to the health status of the pupils. However, when the activities were totaled for the broad areas of functions and categorized as to whether they were performed daily and weekly or monthly, several times a year, and not performed, a percentage comparison revealed differences in area I, II, IV, V, VI, VII. These findings also support hypothesis 1 and reflect the extraneous factors such as the number of schools, the distance, allocation of time, and priority of visits.

b. Do the nurse-school and the nurse-pupil ratios differ with the administrative structures?

There was no difference between the nurse-pupil ratio for the groups. There were differences in the nurse-school ratio. (Refer to Table 3) Responses indicated that the high percentage of nurses employed by the Boards of Education served 1-4 schools, while the high percentage of nurses employed by Departments of Health served 5-9 schools. These data confirm hypothesis 2, that there would be differences in the nurse-school ratio for the two groups (Chapter I).

Question 4.-- Do the areas of concentration of service differ from the areas which the nurses perceive as most

important to the health program?

Tables 29 and 30 present the nurses' rankings of the selected activities as to perceptions of importance. Mean scores of the two groups were compared, and the findings indicated that activities ranked by both groups as having considerable importance related primarily to the health status of the pupils. These activities were also performed consistently by the groups. It is noteworthy that activities which were ranked as having little importance were performed only to a limited extent. These findings refute hypothesis 3, that there would be differences in the perceptions and the performances of the two groups (Chapter I).

Question 5.-- What is the educational background and preparation for the nurses in the state of Oregon?

Nurses in this study who served the schools were licensed to practice nursing and were currently registered in the state of Oregon. There are no other specific requirements or certification required in this state. (39)

a. Do the nurses meet the requirements outlined by the American Nurses' Association?

Although all the sample studied did not meet the recommended qualifications as outlined by the School Nurses Branch, American Nurses' Association, a majority of the total group had received preparation in public health nursing or were attempting additional preparation through workshops or extension courses.

b. Do activities performed differ in accordance with educational preparation?

A comparison of the responses of nurses who had received special preparation in public health and/or school nursing and nurses who had received no special preparation beyond their school of nursing program, revealed that there were no measurable differences for performance of activities in six of the seven broad areas of functions. These findings negate hypothesis 4, that the scope of activities for the nurses would differ in accordance with educational preparation for the job. In area V, Counseling and Guidance, where there was a significant difference between the groups, findings should be considered in light of the extraneous influences mentioned previously in the study.

Comments from various respondents reflected an interest in the programs and a desire to be used effectively. There was expression by some that school health programs should be a part of generalized programs in order that all activities might be "family centered." There was expression by others that school personnel did not understand how to use their services to the best advantage.

2. Conclusions

On the basis of the findings the following conclusions are made:

1. In the areas of administration of school health

programs and participating as faculty members, the role identification of the nurses stems chiefly from their participation as resource persons in providing information regarding the health status of pupils and as professional nurses in safeguarding the health of the children.

2. Nurses perceive their role as health counselors as important, and there is considerable uniformity in the performance of counseling and guidance activities for pupils, school personnel and parents.

3. Nurses are cognizant of their role as a liaison between the home, school, and community.

4. Nurses appear to be lacking strong identification as faculty persons.

5. Nurses' participation in formal classroom instruction and in curriculum planning is limited. Teaching is conducted more on an informal basis or in assisting teachers through demonstrations, talks, and presentation of health units.

6. 70 activities (56%) are performed by over 70% of both groups. This indicates there is considerable uniformity in the activities performed.

7. There is a wide range of activities performed; there is great variety in the type of services rendered.

8. Areas of responsibilities which dominate the nurses' activities relate primarily to safeguarding the health status of the pupils through emphasis on detection of and correction

of defects and prevention and control of disease.

9. There is agreement as to the importance of activities relating to safeguarding the health status of the pupils; there is considerable uniformity in the performance of these activities.

10. There is considerable uniformity among the nurses in the performance of activities as a liaison between the home, the school, and the community. However, a higher percent of nurses in generalized programs perform the activities in area III than do nurses in specialized programs.

11. Areas in which the services of the sample group were concentrated differ. The differences reflect the working relationship of nurses employed by Boards of Education with the administrative authorities and of nurses in generalized programs with the home and community ties.

12. In general, the frequency of performance of activities by nurses employed by Boards of Education suggests a more concentrated program of services for this group.

13. The operational perceptions of the group as to the importance of selected activities appear to be consistent with the intellectual perceptions. What the nurses perceive as important, they perform consistently, what they perceive as unimportant, they perform only to a limited extent.

14. Nurses employed by Departments of Health give service to a larger number of schools than do nurses in specialized programs. Pupil load is essentially the same

for nurses in both groups.

15. Educational preparation differs little for the groups in the sample. Not all of the nurses meet the requirements recommended by School Nurses Branch, American Nurses' Association; a majority have received additional preparation in public health and/or school nursing.

16. The scope of the nurses' activities is not altered appreciably by their educational background. Performance of fewer activities in the area of Counseling and Guidance by nurses with no preparation beyond the school of nursing program is information for which no explanation was found in the data provided by this study.

17. Verbatim comments of the nurses indicate the need for greater understanding between school administrators and the nurses as to the scope of their activities and effective utilization of their services. These comments also reflect the nurses' desire for a more positive definition of their role.

3. Recommendations

On the basis of the experience of this study, the findings, and the conclusions, recommendations for further study are made as follows:

1. A time study be conducted to determine the amount of time nurses spend in non-nursing activities such as hall duty, clerical work, transportation of pupils and activities of similar nature.

2. A study be made of school nurses with varying educational backgrounds to determine the extent that educational preparation influences performance of activities, especially in the area of counseling and guidance.

3. A curriculum study be made by schools of nursing relative to the amount of preparation provided for students in school nursing.

4. An opinion survey be conducted for nurses in the schools to determine their evaluations of school nursing as a specialized program, or a part of a generalized program.

5. A study be made to determine the effectiveness of the check list of activities used in this study as an evaluation tool for nurses working in the schools.

6. A study be conducted to determine the opinions of school administrators in the state as to how nurses can be more effectively used in school health programs.

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APPENDICES

APPENDIX A

TOOLS USED TO OBTAIN DATA

Questions for Guiding Interview

1. What is your employing agency? Bd. of Educ.
 Dept. of P.H.
2. How many schools do you serve? 1 - 9
 10 or more
3. What is your pupil load? 1,000 - 2,000
 3,000 - 5,000
4. What is your average time spent in each school per week? 4 - 8 hours
 9 or more
5. Do you feel you have sufficient time to spend in each school? Yes
 No
6. In your present program, are you able to participate in the following areas?

HEALTH APPRAISAL:

- a. Physical examinations
- b. Vision rescreening
- c. Audiometer retesting
- d. Weighing and measuring

HEALTH SUPERVISION:

- a. Classroom inspection
- b. Teacher conferences
- c. Pupil conferences
- d. Parent conferences
- e. Home visits

HEALTH EDUCATION:

- a. Program and curriculum planning
- b. Classroom demonstrations
- c. Classroom lectures (as a resource person)

- d. Inservice programs _____
- e. Community health education programs _____
- 7. Would you like to do formal classroom teaching? _____
- 8. Are you satisfied with the quality of nursing care which you are able to render? _____
- 9. Were you required to have any special preparation for your present position? _____
- 10. Remarks _____

APPENDIX A (continued)

QUESTIONNAIRE

Part I.

Directions: Please check the appropriate response for each item as it applies to you in your present assignment.

General Information

- 1. What is your employing agency?
 - Board of Education.....
 - Local School District.....
 - Department of Health.....
 - Voluntary Agency.....
 - Other (specify).....

- 2. To whom are you administratively responsible?
 - Public Health Nurse Supervisor.....
 - School Nurse Supervisor.....
 - School Administrator.....
 - Health Officer.....
 - School Physician.....
 - Other (specify).....

- 3. What direct nursing supervision is available to you?
 - Public Health Nurse Supervisor.....
 - School Nurse Supervisor.....
 - Public Health Nurse Consultants.....
 - Other (specify).....

- 4. Are the schools which you serve
 - Public Schools.....
 - Parochial Schools.....
 - Both Public and Parochial.....

- 5. What type of school do you serve?
 - Elementary.....
 - Junior High.....
 - High School (grades 10-12).....
 - High School (grades 9-12).....

- 6. How many schools do you serve?
 - 1-4.....
 - 5-9.....
 - 10-14.....
 - 15-19.....

APPENDIX A (continued)

7. What is the approximate time spent in each school?

- 1/2 - 1 day per week.....
- 1-1/2 - 2 days per week.....
- 2-1/2 - 3 days per week.....
- 3-1/2 - 4 days per week.....
- 4-1/2 - 5 days per week.....
- 1 day per month.....
- 1 day per year.....
- Other (specify).....

8. What is your pupil load? If you serve a school with a full time school nurse, indicate the pupil load of that school.

- 500 - 999.....
- 1,000 - 1,499.....
- 1,500 - 2,999.....
- 3,000 - 4,999.....
- 5,000 - 9,999.....

9. What is your salary range?

- \$3,000 - 3,999.....
- \$4,000 - 4,999.....
- \$5,000 - 5,999.....
- \$6,000 - 6,999.....
- Other (specify).....

Personal and Professional Information

10. From what type of School of Nursing did you graduate?

- Diploma School (hospital controlled).....
- Baccalaureate Degree program.....
- Associate Degree program.....
- Other (specify).....

11. Did you have special preparation in Public Health and/or School Nursing?

- P.H. nursing in basic program.....
- P.H. nursing following basic program.....
- No additional preparation.....
- Some additional preparation (specify).....

12. What is your age?

- 20 - 34 years.....
- 35 - 49 years.....
- 50 years or over.....

APPENDIX A (continued)

13. What is your marital status?

Single.....	=====
Married.....	=====
Separated.....	=====
Divorced.....	=====
Widow.....	=====

APPENDIX A (continued)

QUESTIONNAIRE

Part II.

Directions: Below are listed a number of activities which the school nurses perform. These activities have been suggested by professional experts in the field of school nursing and are grouped according to the broad areas of functions adopted by the School Nurses Branch of the Public Health Nurse Section of the American Nurses' Association.

Spaces have been provided for you to indicate the frequency or infrequency with which you perform these activities. Please check each activity, on the basis of your total school assignment, by using the code listed below.

- 4 - continuously--performed daily or more often
- 3 - often performed--approximately weekly
- 2 - infrequently--performed approximately monthly
- 1 - seldom--once or twice per year
- 0 - not performed--an activity not performed in present position

I. Functions Relating to the Administration of the School Health Program

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Plans with the school personnel and parent teacher organizations for educational programs designed to inform parents and community about community health projects..	_____	_____	_____	_____	_____
2. Works with advisory groups on the school health program.....	_____	_____	_____	_____	_____
3. Plans with the school administrator and local health authority policies and procedures regarding the exclusion and re-admission of pupils and staff for health reasons.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
4. Participates with administrator, physician, principal, sanitarian, firemen, building custodian in annual check of entire buildings and grounds.....	_____	_____	_____	_____	_____
5. Follow-up recommendations given for conditions needing improvement.....	_____	_____	_____	_____	_____
6. Inform administrator and teachers regarding prevalence of diseases and control measures to be followed.....	_____	_____	_____	_____	_____
7. Compiles lists of pupils with defects for each teacher's records and information.....	_____	_____	_____	_____	_____
8. Notes on health record any restrictions of activities as recommended by physician or health department.....	_____	_____	_____	_____	_____
9. Assists with planning a modified program for children with physical impairments.....	_____	_____	_____	_____	_____
10. Assists with planning for educational adjustment for handicapped pupils.....	_____	_____	_____	_____	_____
11. Works with school and dietary personnel on school lunch menu planning.....	_____	_____	_____	_____	_____
12. Recommends children to receive school lunch.....	_____	_____	_____	_____	_____

II. Functions Relating to the Nurse's Role as a Faculty Member

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Assists faculty in planning and evaluation of the curriculum for health instruction.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
2. Assists school personnel in planning safety programs--fire drills, disaster procedures, accident prevention.....	_____	_____	_____	_____	_____
3. Participates in faculty in-service program.....	_____	_____	_____	_____	_____
4. Serves on committees concerned with the school health program....	_____	_____	_____	_____	_____
5. Participates in research of school nursing methods, procedures, and service accomplishments.....	_____	_____	_____	_____	_____
6. Participates in research necessary for the provision of health educational programs suited to the individual health needs of pupils...	_____	_____	_____	_____	_____
7. Supervises a rest program for students excused from physical education.....	_____	_____	_____	_____	_____
8. Supervises ill, injured, or isolated pupils at school.....	_____	_____	_____	_____	_____
9. Visits in home for follow-up of pupils' illnesses.....	_____	_____	_____	_____	_____
10. Contacts private physician (when available) or community agencies for continuity of care for pupils with illnesses.....	_____	_____	_____	_____	_____
11. Investigates pupils absent from school due to unknown causes.....	_____	_____	_____	_____	_____
12. Inspects new entrants into school when physician is not immediately available and no health records are transferred.....	_____	_____	_____	_____	_____
13. Shares information concerning social, emotional or physical factors in the home which tend to affect pupils' adjustment to school.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
14. Participates with faculty of schools of nursing in planning for students' field experience in school nursing.....	_____	_____	_____	_____	_____
15. Serves as a student advisor for nursing students participating in field experience in public health nursing and school nursing.....	_____	_____	_____	_____	_____

III. Functions Relating to the Community

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Meets with parents of pupils starting school to inform them of health services.....	_____	_____	_____	_____	_____
2. Interprets health program to school and community groups.....	_____	_____	_____	_____	_____
3. Interprets health and social needs and resources to school and community groups.....	_____	_____	_____	_____	_____
4. Participates in health programs which originate in the schools and are implemented within the community.....	_____	_____	_____	_____	_____
5. Encourages the family to use services of private physician or community resources.....	_____	_____	_____	_____	_____
6. Notifies, when indicated, groups of parents concerning prevalence and symptoms of certain diseases to which their children may be possible contacts.....	_____	_____	_____	_____	_____
7. Works with private physicians in arranging for specialists examinations for specific pupils to secure diagnosis, if necessary.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
8. Works with private physician or Health Officer in making referrals for pupils to official and non-official agencies.....	_____	_____	_____	_____	_____
9. Investigates the action taken on referrals made to the agencies...	_____	_____	_____	_____	_____
10. For pupils excluded from school, gives information and instruction to parents by note, phone, or in person.....	_____	_____	_____	_____	_____
11. Sends notices regarding any defects to parents.....	_____	_____	_____	_____	_____
12. Investigates regarding correction of defects to see if action has or had not been taken.....	_____	_____	_____	_____	_____
13. Follow-up epidemiologic investigation for tuberculin "reactors".	_____	_____	_____	_____	_____
14. Serves as a liaison between the school personnel, parents and community to ensure cooperation for meeting needs of pupils.....	_____	_____	_____	_____	_____

IV. Functions Relating to Health Appraisal

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Obtains health histories through parent interview.....	_____	_____	_____	_____	_____
2. Interprets health histories from Oregon Pupil Medical Record Form. To parents.....	_____	_____	_____	_____	_____
To teachers.....	_____	_____	_____	_____	_____
3. Records information from Oregon Pupil Medical Record Form on Oregon School Health Record card.	_____	_____	_____	_____	_____
4. Organizes school health examination programs.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
5. Assists with health examinations.	_____	_____	_____	_____	_____
6. Gives initial dental inspections.	_____	_____	_____	_____	_____
7. Gives dental inspections as a part of general check of pupils referred for health reasons.....	_____	_____	_____	_____	_____
8. Assist with dental inspections made by dentist or oral hygienist.....	_____	_____	_____	_____	_____
9. Follow-up recommendations on above.....	_____	_____	_____	_____	_____
10. Periodically weighs, measures, and informs parents of abnormalities.....	_____	_____	_____	_____	_____
11. Gives initial visual screening to pupils using Snellen vision test.	_____	_____	_____	_____	_____
12. Gives visual rescreening tests to pupils referred by teacher.....	_____	_____	_____	_____	_____
Using Snellen test.....	_____	_____	_____	_____	_____
Using plus sphere test.....	_____	_____	_____	_____	_____
Other (specify).....	_____	_____	_____	_____	_____
13. Follow-up recommendations for correction of visual defects.....	_____	_____	_____	_____	_____
14. Schedules group audiometer tests.	_____	_____	_____	_____	_____
15. Gives audiometer retests to referred pupils.....	_____	_____	_____	_____	_____
16. Schedules pupils with hearing loss for special screening clinics.....	_____	_____	_____	_____	_____
17. Follow-up recommendations on correction for hearing loss.....	_____	_____	_____	_____	_____
18. Gives tuberculin tests.....	_____	_____	_____	_____	_____
19. Makes referrals to tuberculosis clinic.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
20. Follows-up recommendations made by tuberculosis clinic, health agency, private physician.....	_____	_____	_____	_____	_____
21. Makes referrals to child guidance clinics.....	_____	_____	_____	_____	_____
22. Participates in referrals to the Guidance Committee in the school...	_____	_____	_____	_____	_____
23. Follows-up referrals on above (21 or 22).....	_____	_____	_____	_____	_____
24. Makes referrals to Crippled Children's Service.....	_____	_____	_____	_____	_____
25. Follows-up referrals to Crippled Children's Service.....	_____	_____	_____	_____	_____
26. Makes referrals to Cardiac Clinic..	_____	_____	_____	_____	_____
27. Follows-up referrals to Cardiac Clinic.....	_____	_____	_____	_____	_____
28. Records all test results on school health record.....	_____	_____	_____	_____	_____

V. Functions Relating to Counseling and Guidance

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Recognizes and calls teachers' attention to deviations from normal growth and development.....	_____	_____	_____	_____	_____
2. Recognizes and calls parents' attention to deviations from normal growth and development.....	_____	_____	_____	_____	_____
3. Recognizes and calls teachers' attention to deviations from good mental health.....	_____	_____	_____	_____	_____
4. Recognizes and calls parents' attention to deviations from good mental health.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
5. Records on permanent cumulative record any deviations from normal	_____	_____	_____	_____	_____
6. Interviews teachers to discuss pupils' health conditions and interprets physicians recommendations.....	_____	_____	_____	_____	_____
7. Interviews pupils in school regarding prescribed treatments....	_____	_____	_____	_____	_____
8. Interviews parents at home regarding pupils' health conditions and physicians prescribed treatment.....	_____	_____	_____	_____	_____
9. Participates in conferences with teachers to discuss health problems of pupils..... Group conferences..... Individual conferences.....	_____	_____	_____	_____	_____
10. Participates in group conferences with pupils having the same health problems (e.g., vision, hearing, weight, acne, and the like).....	_____	_____	_____	_____	_____
11. Participates in School Guidance Committee meetings.....	_____	_____	_____	_____	_____
12. Assists parents in accepting and planning for pupils with limitations.....	_____	_____	_____	_____	_____
13. Serves as a health counselor to pupils.....	_____	_____	_____	_____	_____
14. Serves as a health counselor to parents.....	_____	_____	_____	_____	_____
15. Serves as a health counselor to school personnel.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

VI. Functions Relating to Health Education

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Makes periodic check of hygienic practices as washing hands, showers, use of tissues, in the school.....	_____	_____	_____	_____	_____
2. Inspects and interviews pupils returned from illness absences...	_____	_____	_____	_____	_____
3. Inspects and interviews pupils referred by teachers because of variations from normal.....	_____	_____	_____	_____	_____
4. Records causes of illness absences on health record cards..	_____	_____	_____	_____	_____
5. Teaches first aid informally when opportunity arises.....	_____	_____	_____	_____	_____
6. Teaches Red Cross first aid classes.....	_____	_____	_____	_____	_____
7. Teaches home nursing in classroom	_____	_____	_____	_____	_____
8. Assists teacher with class presentation of health units through talks, demonstrations, etc.....	_____	_____	_____	_____	_____
9. Assists teachers with observation for deviation from normal growth and development.....	_____	_____	_____	_____	_____
10. Guides teachers in making classroom inspections of all pupils when exposure to communicable disease occurs.....	_____	_____	_____	_____	_____
11. Demonstrates visual screening....	_____	_____	_____	_____	_____
To teachers.....	_____	_____	_____	_____	_____
To lay groups (specify).....	_____	_____	_____	_____	_____
12. Participates in sex education for girls.....	_____	_____	_____	_____	_____
13. Participates in sex education for boys.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
14. Serves as a resource person to the various teachers in matters of health education.....	_____	_____	_____	_____	_____
15. Assists teachers in procuring health materials to be used in instruction (films, posters, aids).....	_____	_____	_____	_____	_____
16. Gives formal group health instruction in the classroom.....	_____	_____	_____	_____	_____

VII. Functions Relating to Health Protection and Safety

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Makes inspection of drinking fountains, toilets, and wash rooms.....	_____	_____	_____	_____	_____
2. Observes and brings to parents' and administrators' attention hazards in homes, schools, and community.....	_____	_____	_____	_____	_____
3. Interprets to teachers and pupils laws and regulations regarding sanitation of school facilities..	_____	_____	_____	_____	_____
4. Prepares instructions for care of emergencies.....	_____	_____	_____	_____	_____
5. Explains emergency instructions to teaching staff, pupils, and parents.....	_____	_____	_____	_____	_____
6. Demonstrates proper emergency procedures to use.....	_____	_____	_____	_____	_____
7. Administers first aid.....	_____	_____	_____	_____	_____
8. Locates and inspects first-aid stations in school.....	_____	_____	_____	_____	_____
9. Records on school health record minor and major accidents.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
10. Reports (written) accidents to administrator.....	_____	_____	_____	_____	_____
11. Reviews and summarizes accident reports.....	_____	_____	_____	_____	_____
12. Makes recommendations directed toward avoiding accidents.....	_____	_____	_____	_____	_____
13. Follows-up accidents in school and in home.....	_____	_____	_____	_____	_____
14. Transports ill or injured pupils home or to hospital, physicians' office, or clinic if condition warrants this.....	_____	_____	_____	_____	_____
15. Contacts parents to have them come for ill or injured pupils...	_____	_____	_____	_____	_____
16. Observes lunch room facilities and food handling techniques as they affect the health of the pupils.....	_____	_____	_____	_____	_____
17. Reviews health records to determine the immunization status of the pupils.....	_____	_____	_____	_____	_____
18. Prepares immunization lists.....	_____	_____	_____	_____	_____
19. Notifies parents of needed immunizations and solicits their consent.....	_____	_____	_____	_____	_____
20. Notifies pupils and parents of date and time of immunization clinics.....	_____	_____	_____	_____	_____
21. Organizes immunization clinics...	_____	_____	_____	_____	_____
22. Participates in immunization clinics.....	_____	_____	_____	_____	_____
23. Records immunization on health records.....	_____	_____	_____	_____	_____

APPENDIX A (continued)

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
24. Inspects students and school personnel with suspected communicable disease.....	-----	-----	-----	-----	-----
25. Makes classroom inspection of all pupils when exposure to communicable disease occurs.....	-----	-----	-----	-----	-----

APPENDIX A (continued)

QUESTIONNAIRE

Part III.

Directions: Below are listed twenty (20) activities which school nurses perform. On the right-hand side of the column would you please rank these activities according to what you, as a school nurse, perceive as their degree of importance. Your perceptions need not be based upon whether or not you actually perform the activity--only as you perceive its importance.

Spaces have been provided for you to check each activity using the code listed below.

- 4 - extreme--highest or utmost degree of importance
- 3 - considerable--somewhat large in amount of importance
- 2 - moderate--medium or fair amount of importance
- 1 - some--a little importance
- 0 - not important--no importance

<u>ACTIVITY</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
1. Participates in conferences with teachers concerning health needs and problems of pupils.....	_____	_____	_____	_____	_____
2. Serves as a resource person in matters of health education.....	_____	_____	_____	_____	_____
3. Participates in studies of the health educational programs suited to the individual needs of pupils.....	_____	_____	_____	_____	_____
4. Visits in homes of selected pupils absent because of illness.	_____	_____	_____	_____	_____
5. Participates in classroom health instruction and demonstrations upon request.....	_____	_____	_____	_____	_____
6. Serves on curriculum committees..	_____	_____	_____	_____	_____

APPENDIX A (concluded)

ACTIVITY	4	3	2	1	0
7. Follows-up pupils referred for correction of defects.....	_____	_____	_____	_____	_____
8. Interprets health and social needs and resources to school and community groups.....	_____	_____	_____	_____	_____
9. Makes suggestions on school lunch menu planning.....	_____	_____	_____	_____	_____
10. Compiles pertinent health data on the health record cards.....	_____	_____	_____	_____	_____
11. Cares for first-aid supplies and equipment.....	_____	_____	_____	_____	_____
12. Retests vision of pupils.....	_____	_____	_____	_____	_____
13. Administers first aid.....	_____	_____	_____	_____	_____
14. Teaches first aid classes.....	_____	_____	_____	_____	_____
15. Assists teachers in procuring health materials to be used for instruction.....	_____	_____	_____	_____	_____
16. Serves as health counselor to pupils--either upon teacher referral or a voluntary basis.....	_____	_____	_____	_____	_____
17. Guides teachers in making classroom inspection of all pupils when exposure to communicable disease occurs.....	_____	_____	_____	_____	_____
18. Transports sick and injured pupils.....	_____	_____	_____	_____	_____
19. Serves as health counselor to school personnel.....	_____	_____	_____	_____	_____
20. Makes suggestions regarding a modified program for children with physical impairments.....	_____	_____	_____	_____	_____

COMMENTS:

APPENDIX B
CORRESPONDENCE

Letter to School Nurses Requesting
Participation in the Study

Dear

From the files of the state Board of Nursing, it has been found that your name is listed under the classification of a school nurse. This writer is conducting "A Study of the Role and Functions of School Nurses in Elementary and Secondary Schools in Oregon" as a partial fulfillment of the Master of Science degree in Nursing Education at the University of Oregon. As a professional nurse, therefore, your participation in this study is particularly desirable.

Information from a selected number of school nurses who work under different administrative structures and who serve schools with different ethnic and socio-economic populations will provide valuable information as to the scope of the nurses' activities. It should further clarify the areas in which their services are concentrated and identify their role as community leaders.

Would you care to participate in this study? A postal card has been provided upon which you may verify your present classification.

You may indicate your willingness to participate by completing the card and returning it by October 1, 1961.

Very truly yours,

Mildred L. Day, R.N.

MLD:owd

Encl. 1

APPENDIX B (continued)

Letter to Public Health Nurses
Requesting Participation in the Study

Dear

From the files of the State Board of Nursing, it has been found that your name is listed under the classification of a public health nurse. It is generally understood that many of the public health nurses give service to the schools as a part of the community health program. This writer is conducting "A Study of the Role and Functions of School Nurses in Elementary and Secondary Schools in Oregon" as a partial fulfillment of the Master of Science degree in Nursing Education at the University of Oregon. As a professional nurse, therefore, your participation in this study is particularly desirable.

Information from a selected number of school nurses who work under different administrative structures and who serve schools with different ethnic and socio-economic populations will provide valuable information as to the scope of the nurses' activities. It should further clarify the areas in which their services are concentrated and identify their role as a community leader.

Would you care to participate in this study? A postal card has been provided upon which you may verify your present classification.

You may indicate your willingness to participate by completing the card and returning it by October 1, 1961.

Very truly yours,

Mildred L. Day, R.N.

MLD:owd

Encl. 1

APPENDIX B (continued)

Postal Card Verifying Classification
of Position

Present classification of employment:

School Nurse _____

Public Health Nurse,
who works in schools __________
Signed

APPENDIX B (concluded)

Cover Letter Accompanying
Questionnaire

Dear

Thank you for returning the card indicating your willingness to participate in "A Study of the Role and Functions of School Nurses in Elementary and Secondary Schools in Oregon."

As a nurse who serves the schools and one who is interested in the health of our children you realize the importance of health services to meet the needs of this school-age group. A questionnaire, listing a number of activities which you possibly perform, has been compiled to assist the writer in identifying your activities and your role in the school health program.

Would you please complete the form and return it by November 10, 1961? A self-addressed, stamped envelope has been provided for your use. In return for your assistance, the findings of this study will be made available to you through the University of Oregon Medical School Library, where the report will be on file.

Since no particular nurse or administrative agency will be identified in the results of this study, it is not necessary to sign your name to the questionnaire.

Thank you for participating in the study.

Very truly yours,

Mildred L. Day, R.N.

This study has been approved as partial fulfillment of requirement for a Master of Science Degree. Both Mrs. Day and I appreciate your participation.

Sincerely yours,

Lucile Gregerson, Associate
Professor, University of
Oregon School of Nursing

MLD:owd
Encl. 1

APPENDIX C
MASTER TABULATION

Distribution of Responses from 89 Participants
Concerning General, Personal, and Professional
Information

General, Personal, and Professional Information (1)	Responses of nurses, Boards of Education (2)	Responses of nurses, Departments of Health (3)
1. What is your employing agency?		
Board of Education.....	6	
Local School District....	19	
Department of Health.....		64
2. To whom are you administratively responsible?		
Public Health Nurse Supervisor.....	2	22
School Nurse Supervisor..	7	
School Administrator.....	14	1
Health Officer.....		23
Other (specify)*.....	2	18
3. What direct nursing supervision is available to you?		
Public Health Nurse Supervisor.....	2	38
School Nurse Supervisor..	6	
Public Health Nurse Consultants.....	12	13
Other (specify).....	3	13
4. Are the schools which you serve		
Public Schools.....	25	28
Both Public and Parochial		36

APPENDIX C (continued)

General, Personal, and Professional Information (1)	Responses of nurses, Boards of Education (2)	Responses of nurses, Departments of Health (3)
5. What type of school do you serve?		
Elementary.....	6	11
High School (grades 10-12)	1	
High School (grades 9-12)	3	
Other (combinations).....	15	53
6. How many schools do you serve?		
1 - 4.....	15	14
5 - 9.....	6	34
10 - 14.....	3	9
15 - 19.....		5
20 - Over.....	1	2
7. What is the approximate time spent in each school?		
1/2 - 1 day per week.....	13	34
1-1/2 - 2 days per week...		2
2-1/2 - 3 days per week...	2	1
4-1/2 - 5 days per week...	4	
1 day per month.....		3
Other (specify).....	6	24
8. What is your pupil load? If you serve a school with a full time school nurse, in- dicate the pupil load of that school.		
500 - 999.....	2	7
1,000 - 1,499.....	7	11
1,500 - 2,999.....	12	29
3,000 - 4,999.....	1	9
5,000 - 9,999.....	3	3
9. What is your salary range?		
\$3,000 - 3,999.....	3	2
\$4,000 - 4,999.....	6	39
\$5,000 - 5,999.....	9	21
\$6,000 - 6,999.....	6	1
Other (specify).....	1	1

APPENDIX C (continued)

General, Personal, and Professional Information (1)	Responses of nurses, Boards of Education (2)	Responses of nurses, Departments of Health (3)
10. From what type of School of Nursing did you graduate?.. Diplome School (hospital controlled)..... Baccalaureate Degree pro- gram..... Associate Degree program.	19 6	38 22 4
11. Did you have special prepa- ration in Public Health and/or School Nursing? P.H. nursing in basic program..... P.H. nursing following basic program..... No additional preparation Some additional prepara- tion (specify)..... Other (combinations).....	2 5 2 9 7	14 29 9 1 11
12. What is your age? 20-34 years..... 35-49 years..... 50 years or over.....	2 17 6	18 25 21
13. What is your marital status? Single..... Married..... Separated..... Divorced..... Widow.....	2 18 3 2	12 48 1 2 1

* The breakdowns of responses for "Other" is found in pages 221 to 224

APPENDIX C (continued)

Distribution of Responses from 25 Nurses Employed
by Boards of Education for "Other" in Specific
Questions Concerning General, Personal, and
Professional Information

	<u>Number of Responses</u>
Question 2. To whom are you administratively responsible?	
School Nurse Supervisor, School Physician, and Director of Health, Physical Education, and Athletics.....	1
School Administrator and Health Officer.....	1
Question 3. What direct nursing supervision is available to you?	
Public Health Nurse Supervisor and Public Health Nurse Consultants.....	1
Public Health Nurse Supervisor, Public Health Nurse Consultants, and School Nurse Supervisor.....	1
Question 5. What type of schools do you serve?	
Elementary and Junior High.....	7
Elementary and High School 9-12	2
Elementary, Junior High, and High School 10-12.....	3
Elementary, Junior High, High School 10-12, and High School 9-12.....	3
Question 7. What is the approximate time spent in each school?	
1/2 - 1 day per week and 1-1/2 - 2 days per week.....	5
1/2 - 1 day per week and 3-1/2 - 4 days per week.....	1

APPENDIX C (continued)

Distribution of Responses from 64 Nurses Employed
by Departments of Health for "Other" in Specific
Questions Concerning General, Personal, and
Professional Information

	<u>Number of Responses</u>
Question 2. To whom are you administratively responsible?	
Health Officer and Court.....	1
Public Health Nurse Supervisor and Health Officer.....	13
Public Health Nurse Director, School Administrator, and Health Officer.....	1
School Nurse Supervisor, Health Officer, and School Physician...	1
Public Health Nurse Supervisor, Health Officer, and School Physician.....	1
Public Health Nurse Supervisor and School Administrator.....	1
Question 3. What direct nursing supervision is available to you?	
Public Health Nurse Supervisor and Public Health Nurse Consultants.....	12
Public Health Nurse Director and Public Health Nurse Consultants.	1
Question 5. What type of schools do you serve?	
Elementary, Junior High, High School 10-12, and High School 9-12.....	15
Elementary and High School 9-12.	14
Elementary, Junior High, and High School 9-12.....	9
Elementary and Junior High.....	8
Elementary, Junior High, and High School 10-12.....	6
Elementary, High School 9-12, and High School 10-12.....	1

APPENDIX C (continued)

	Number of Responses
Question 7. What is the approximate time spent in each school?	
1/2 day per month.....	1
2 hours per month.....	1
1 day per month and special call	1
1/2 - 1 day per week and 1 visit per month.....	1
1 day per month and 2 days per year.....	1
2 hours per 100 students per month--elementary and 1 hour per 100 students per month--high school.....	1
1/2 to 1 day per week and (1 school) 2 to 3 times per year...	1
2-1/2 to 3 hours per school per week.....	2
1/2 to 1 day per week, (1 school) twice a year, (1 school) once per month, and (1 school) once every 2 months.....	1
(1 school) 1/2 day per week, and (1 school) 1 day per month.....	1
1 to 2 hours per visit with total of 249 visits per year....	1
1/2 to 1 day per week, 1 day per month, and 2 to 3 visits per year.....	1
1 day per month, 1/2 to 2 days per month, and 2 days per year..	1
1/2 to 1 day per week and 1 day per month.....	10

APPENDIX C (continued)

Distribution of Responses from 89 Participants
Concerning Educational Background and
Professional Preparation

<u>Educational Background and Professional Preparation</u>	<u>Responses of nurses, Boards of Education</u>	<u>Responses of nurses, Departments of Health</u>
Diploma School Public Health Nursing following the program.....	4	18
Diploma School Public Health Nursing in the program.....		1
Diploma School No additional preparation.....	1	8
Diploma School Some additional preparation.....	5	1
Diploma School Public Health Nursing following the program Bachelor's degree.....	2	4
Diploma School Public Health Nursing following the program Some additional preparation.....	2	1
Diploma School Public Health Nursing in the program Public Health Nursing following the program.....	1	3
Diploma School Public Health Nursing in the program Bachelor's and Master's degree..		1
Diploma School Public Health Nursing in the program Some additional preparation.....	2	1

APPENDIX C (continued)

<u>Educational Background and Professional Preparation</u>	<u>Responses of nurses, Boards of Education</u>	<u>Responses of nurses, Departments of Health</u>
Diploma School		
Bachelor's degree.....	2	
Baccalaureate degree program		
Public Health Nursing in basic program.....	1	13
Baccalaureate degree program		
Public Health Nursing following basic program.....		6
Baccalaureate degree program		
Public Health Nursing following basic program		
Master's degree.....		1
Baccalaureate degree program		
Public Health Nursing in basic program		
Public Health Nursing following basic program.....	1	1
Baccalaureate degree program		
No additional preparation.....	1	1
Baccalaureate degree program		
Some additional preparation.....	2	
Baccalaureate degree program		
Public Health Nursing in basic program		
Some additional preparation.....	1	
Associate degree program		
Public Health Nursing following the program.....		3
Associate degree program		
Public Health Nursing in the program		
Public Health Nursing following the program.....		1

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning
Performance of Functions Relating to
Administration of the School Health Program

Activity* (1)	Responses of nurses, Boards of Education				Responses of nurses, Departments of Health					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. educational programs.....	1	2	8	11	3	1	3	13	34	12
2. school health program....	4	1	7	6	7	1	4	7	22	30
3. exclusion et al policies.	11	4	3	6	1	9	14	5	22	13
4. annual building check....	1	0	0	7	17	0	1	1	9	53
5. follow-up building check.	3	2	1	5	12	2	4	2	19	34
6. information--disease.....	13	5	4	3	0	16	26	14	6	0
7. lists of pupils--defects.	11	4	2	8	0	7	16	11	10	18
8. pupil activity re- strictions.....	16	4	4	1	0	16	30	5	8	2
9. modified program.....	3	7	4	5	6	3	10	14	17	19
10. plan for handicapped.....	4	8	7	5	1	3	9	18	15	16
11. lunch menu planning.....	0	1	1	2	21	0	0	3	4	56
12. pupils to receive lunch..	5	2	7	5	6	4	14	11	20	9

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4---con-
 tinuously; 3---often performed; 2---infrequently; 1---seldom; 0---not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning Performance of Functions Relating to the Nurse's Role as a Faculty Member

Activity*	Responses of nurses, Boards of Education					Responses of nurses, Departments of Health				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. curriculum planning.....	1	2	4	6	12	0	1	6	16	41
2. safety programs.....	2	1	5	6	11	2	0	3	20	37
3. faculty in-service.....	2	1	5	12	5	0	2	8	23	29
4. committees on health program.....	2	1	9	5	8	0	4	11	11	35
5. research of school nursing.....	0	3	4	8	9	0	1	6	16	39
6. research, specialized programs.....	0	1	4	10	9	1	3	5	15	38
7. supervision--rest programs.....	3	0	4	3	14	1	0	7	5	49
8. supervision--ill, isolated follow-up visits.....	18	4	6	0	0	9	18	10	8	16
9. physician or agency contact.....	15	6	2	2	2	25	24	9	2	1
10. pupils' absences.....	11	9	3	3	0	17	27	12	4	1
11. inspection--new entrants.....	11	7	0	0	4	12	11	17	8	14
12. extraneous home factors.....	12	3	4	1	5	6	6	4	8	37
13. student field experience.....	17	6	1	1	0	26	30	5	1	0
14. student advisor.....	1	0	0	2	21	4	2	6	11	39
15. student advisor.....	1	0	0	1	22	5	1	5	25	26

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4--continuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning Performance of Functions Relating to the Community

Activity*	Responses of nurses, Boards of Education					Responses of nurses, Departments of Health				
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. information to parents...	4	2	0	14	5	3	3	5	48	4
2. interpretation--health program.....	3	3	5	11	2	7	8	19	27	2
3. interpretation--needs....	3	2	10	7	2	11	6	17	26	4
4. health programs in community.....	6	2	6	7	2	3	9	16	20	12
5. families' use of resources	17	7	1	0	0	42	15	5	1	1
6. information--contact diseases.....	8	2	5	8	1	7	12	18	17	9
7. referrals to specialists.	5	3	6	6	5	9	10	26	9	7
8. referrals to agencies....	7	6	7	3	2	17	20	20	4	1
9. action on referrals.....	5	6	7	2	4	10	23	19	8	2
10. instructions for excluded pupils.....	17	6	2	0	0	26	23	9	4	2
11. notices regarding defects	18	6	1	0	0	30	23	6	4	1
12. action for correction....	13	5	7	0	0	18	29	14	2	0
13. tuberculin "reactors"....	7	2	1	4	11	17	13	22	10	0
14. work as liaison.....	15	3	6	0	0	34	15	9	4	1

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4--continuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning Performance of Functions Relating to Health Appraisal

Activity#	Responses of nurses, Boards of Education						Responses of nurses, [†] Departments of Health					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1. health histories.....	10	4	9	1	0	10	27	6	12	6	6	
2. interpretation--histories to parents.....	13	3	3	3	0	8	16	13	12	2	2	
to teachers.....	14	8	3	0	0	17	20	15	10	1	1	
3. information on health card.....	17	1	1	4	2	15	11	5	14	18	18	
4. health examination pro- grams.....	7	2	2	3	11	3	4	6	21	30	30	
assistance with examina- tions.....	7	2	2	5	9	5	7	8	20	22	22	
5. dental inspections.....	11	0	1	4	9	2	4	3	14	40	40	
6. dental inspections in general check.....	11	5	3	2	4	8	10	18	7	21	21	
7. assistance with in- spections.....	0	0	0	7	18	0	0	0	11	52	52	
8. follow-up recommendations weights and measurements.	7	3	3	3	8	6	7	17	12	18	18	
9. initial visual screening.	8	1	1	5	10	2	2	3	6	51	51	
10. visual rescreening using Snellen test.....	8	0	4	2	6	5	6	4	7	42	42	
11. using plus sphere test. other (specify).....	19	2	2	1	0	36	18	5	2	3	3	
12. follow-up vision.....	2	0	0	0	2	0	0	1	0	1	1	
13. follow-up vision.....	0	1	1	0	1	1	2	1	0	1	1	
14. group audiometer tests....	18	3	3	1	0	21	26	12	3	32	32	
	3	0	2	6	13	3	4	1	21			

APPENDIX C (continued)

Activity (1)	Responses of nurses, Boards of Education					Responses of nurses, Departments of Health				
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
15. audiometer retests.....	5	1	0	1	18	1	1	8	7	46
16. referrals--hearing loss..	6	2	0	9	8	3	3	12	28	15
17. follow-up--hearing loss..	9	3	4	6	3	9	14	19	17	3
18. tuberculin tests.....	0	0	1	4	20	5	15	11	17	14
19. referrals to tuberculosis clinic.....	5	1	2	5	11	8	11	12	19	12
20. follow-up recommendations	8	2	1	5	8	14	20	18	10	0
21. referrals--Guidance clinics.....	3	4	10	5	2	4	12	27	11	8
22. referrals--guidance committee.....	2	3	10	3	6	2	9	18	7	27
23. follow-up referrals.....	5	3	10	4	3	5	14	23	7	11
24. referrals--Crippled Children's Service.....	4	0	4	8	8	7	5	27	18	5
25. follow-up referrals.....	4	2	5	7	7	7	9	22	18	6
26. referrals--Cardiac Clinic	0	1	2	2	18	3	4	7	24	25
27. follow-up referrals.....	1	1	3	2	16	5	4	9	23	21
28. test results--health record.....	14	3	4	2	2	16	13	9	8	14

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4--con-
 tinuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)
 Distribution of Responses from 89 Participants Concerning
 Performance of Functions Relating to
 Counseling and Guidance

Activity*	Responses of nurses, Boards of Education,					Responses of nurses, Departments of Health				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. deviations--teachers' attention.....	17	5	3	0	0	13	19	16	12	3
2. deviations--parents' attention.....	16	5	3	1	0	12	23	13	12	3
3. teachers' attention-- mental health.....	16	3	4	1	1	13	17	17	9	6
4. parents' attention-- mental health.....	12	4	5	4	0	12	15	14	13	8
5. deviations on cumulative record.....	14	4	3	3	1	10	18	14	10	10
6. physician's recommendation pupils' interviews.....	11	9	4	0	0	24	20	16	4	0
7. parents' interviews.....	13	6	4	1	0	16	20	18	4	6
8. teacher-nurse conferences group.....	10	7	3	3	1	16	25	14	7	2
9. individual.....	5	4	4	1	1	7	8	11	14	3
10. group conferences with pupils.....	14	7	2	1	0	28	19	7	6	1
11. School Guidance Committee plan with parents.....	2	1	2	5	14	2	4	10	17	31
12. health counselor--pupils.	4	6	6	4	11	1	7	9	4	42
13. health counselor--parents	20	3	1	5	3	8	15	20	12	8
14. health counselor--parents	13	7	3	0	0	24	12	15	9	4
						18	15	17	8	6

APPENDIX C (continued)

Activity	Responses of nurses, Boards of Education				Responses of nurses, Departments of Health					
	4	3	2	1	0	4	3	2	1	0
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
15. health counselor--school personnel.....	17	4	3	0	0	18	15	12	11	7

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4---con-
 tinuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning Performance of Functions Relating to Health Education

Activity* (1)	Responses of nurses, Boards of Education			Responses of nurses, Departments of Health						
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. hygienic practices.....	3	7	4	3	6	3	3	14	23	18
2. pupils returned from illnesses.....	13	7	3	1	0	10	15	16	10	10
3. pupils referred by teacher illness absences on record.....	10	5	3	0	1	30	19	10	5	0
4. first aid--informally.....	15	4	4	1	0	6	8	15	9	23
5. formal first aid classes.....	1	0	1	1	21	13	15	26	8	2
6. home nursing.....	2	0	0	1	18	0	0	0	1	61
7. assist teacher--health units.....	3	5	9	3	5	1	9	22	23	7
8. teachers' observations.....	7	9	5	1	1	11	15	16	13	7
9. classroom inspections.....	8	5	8	3	1	10	10	18	19	6
10. visual screening to teachers.....	3	3	3	10	4	6	5	12	36	1
11. to lay groups.....	1	1	0	7	4	2	0	2	15	5
12. sex education--girls.....	2	1	0	14	7	1	6	11	30	14
13. sex education--boys.....	0	0	0	4	19	0	0	6	14	41
14. resource person.....	10	8	5	2	0	14	19	16	12	2
15. health materials.....	8	6	5	5	1	10	17	16	15	4
16. formal classroom instruction.....	3	2	5	1	13	2	7	15	19	19

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4--continuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX C (continued)

Distribution of Responses from 89 Participants Concerning Performance of Functions Relating to Health Protection and Safety

Activity*	Responses of Boards of Education				Responses of nurses, Departments of Health					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. sanitary inspection.....	0	5	8	2	10	1	2	6	20	34
2. attention to hazards.....	1	1	9	9	5	5	6	15	25	11
3. sanitary laws and regulations.....	1	3	8	3	9	3	1	6	21	31
4. instructions--emergencies	6	3	4	7	4	3	2	5	13	39
5. explanation--emergency plan.....	4	4	5	4	7	4	5	7	20	25
6. proper emergency procedure.....	5	4	5	6	5	2	3	6	20	30
7. first aid.....	16	3	1	3	0	8	22	12	14	7
8. first-aid stations.....	12	4	2	3	2	7	12	19	21	4
9. record of accidents.....	11	5	6	1	1	6	12	7	11	26
10. written accident reports.	5	2	2	1	14	2	7	4	6	42
11. review of accident reports.....	6	2	2	3	11	2	0	1	2	56
12. accident prevention.....	7	5	6	4	2	0	4	14	22	21
13. follow-up--accidents.....	8	5	4	3	4	2	3	16	20	17
14. transportation of pupils.	10	5	6	2	1	0	2	8	14	39
15. contact parents of ill or injured.....	20	1	1	1	1	7	15	13	9	18
16. lunch room--food handling	5	4	3	3	7	4	4	13	21	21
17. immunization status.....	10	1	4	8	1	10	12	13	23	5
18. immunization lists.....	5	1	1	9	8	7	5	8	17	25
19. notification to parents..	5	1	2	10	6	9	9	6	32	8

APPENDIX C (continued)

Activity	Responses of nurses, Boards of Education			Responses of nurses, Departments of Health						
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
20. date, time of clinics....	5	1	1	11	6	9	8	9	29	6
21. organization of clinics..	2	1	1	10	9	5	7	4	34	12
22. participation in clinics.	2	1	4	10	6	7	6	17	30	3
23. immunizations recorded....	7	3	1	8	5	7	9	5	20	20
24. inspection of communicable disease suspects.....	17	5	1	0	0	19	24	14	3	1
25. classroom inspection for communicable disease.....	9	3	2	7	3	6	6	14	18	16

Totals for Areas

Area	4	3	2	1	0	4	3	2	1	0
I. Administration	72	40	48	64	74	62	131	104	186	262
II. Faculty.....	94	44	46	62	122	108	130	114	173	402
III. Community.....	128	55	64	62	34	234	209	207	184	46
IV. Appraisal.....	222	60	98	109	239	231	298	340	386	546
V. Counseling.....	184	77	55	29	33	222	252	223	152	140
VI. Education.....	107	68	56	64	102	119	148	218	265	266
VII. Protection.....	181	73	89	128	127	135	186	244	465	517

* The complete statement is listed in Appendix A
 x Activities were checked according to frequency of performance using code: 4--con-
 tinuously; 3--often performed; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each statement of activity

APPENDIX D

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to the Administration of the School Health Program

Area I Activity#	Nurses employed by Boards of Education				Nurses employed by Departments of Health ⁺					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0 ^x (11)
1.	4.0	6.0	32.0	44.0	12.0	1.6	4.8	20.6	54.0	19.0
2.	16.0	4.0	28.0	24.0	28.0	1.6	6.2	10.9	34.4	46.9
3.	44.0	16.0	12.0	24.0	4.0	14.3	22.2	7.9	34.9	20.6
4.	4.0	0.0	0.0	28.0	68.0	0.0	1.6	1.6	14.0	82.8
5.	13.1	8.7	4.3	21.7	52.2	3.2	6.5	3.3	13.1	55.7
6.	52.0	20.0	16.0	12.0	0.0	25.8	41.9	22.6	9.7	0.0
7.	44.0	16.0	6.0	32.0	0.0	11.3	25.8	17.7	16.1	29.0
8.	64.0	16.0	16.0	4.0	0.0	26.2	49.2	8.2	13.1	3.3
9.	12.0	28.0	16.0	20.0	24.0	4.8	15.9	22.2	27.0	30.1
10.	16.0	32.0	28.0	20.0	4.0	4.9	14.8	29.5	24.6	26.2
11.	0.0	4.0	4.0	8.0	84.0	0.0	0.0	4.8	6.3	88.9
12.	20.0	8.0	28.0	20.0	24.0	7.0	24.1	19.0	34.4	15.5

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

+ Not all participants responded for each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to the Nurse's Role as a Faculty Member

Area II Activity*	Nurses employed by Boards of Education				Nurses employed by Departments of Health+					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0x (11)
1.	4.0	8.0	16.0	24.0	48.0	0.0	1.6	9.4	25.0	64.0
2.	8.0	4.0	20.0	24.0	44.0	3.2	0.0	4.8	32.2	59.7
3.	8.0	4.0	20.0	48.0	20.0	0.0	3.2	12.9	37.1	46.7
4.	8.0	4.0	36.0	20.0	32.0	0.0	6.6	18.0	18.0	57.4
5.	0.0	12.5	16.7	33.3	37.5	0.0	1.6	9.7	25.8	62.9
6.	0.0	4.2	16.7	41.7	37.5	1.6	4.8	8.0	24.2	61.3
7.	12.5	0.0	16.7	12.5	56.3	1.6	0.0	11.3	8.1	79.0
8.	72.0	16.0	0.0	12.0	0.0	14.8	29.5	16.4	13.1	26.2
9.	60.0	24.0	8.0	0.0	8.0	41.0	39.3	14.8	3.3	1.6
10.	44.0	36.0	12.0	8.0	0.0	27.8	44.2	19.7	6.6	1.6
11.	44.0	28.0	0.0	12.0	16.0	19.3	17.7	27.4	12.9	22.6
12.	48.0	12.0	16.0	4.0	20.0	9.8	9.8	6.6	13.1	60.6
13.	68.0	24.0	4.0	4.0	0.0	41.9	48.4	8.1	1.6	0.0
14.	4.2	0.0	0.0	8.3	87.5	6.5	3.2	9.7	17.7	62.9
15.	4.2	0.0	4.2	0.0	91.6	8.1	1.6	8.1	40.3	41.9

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed
 + Not all participants responded to each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to
Frequency of Performance for Functions Relating to
the Community

Area III Activity*	Nurses employed by Boards of Education				Nurses employed by Departments of Health+					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0x (11)
1.	16.0	8.0	0.0	56.0	20.0	4.8	4.8	7.9	76.2	6.3
2.	12.5	12.5	20.8	45.8	8.3	11.1	12.7	30.2	42.8	3.2
3.	12.5	8.3	41.7	29.2	8.3	17.1	9.4	26.6	40.7	6.2
4.	26.1	6.7	26.1	30.4	8.7	4.8	14.5	29.0	32.2	19.3
5.	68.0	28.0	4.0	0.0	0.0	65.6	23.4	7.8	1.6	1.6
6.	33.3	8.3	20.8	33.3	4.2	11.1	19.0	28.6	27.0	14.3
7.	20.0	12.0	24.0	24.0	20.0	14.7	16.4	42.7	14.7	11.5
8.	20.0	24.0	28.0	12.0	8.0	27.4	32.2	32.2	6.5	1.6
9.	20.8	25.0	29.2	8.3	16.7	16.1	37.1	30.7	12.9	3.2
10.	68.0	24.0	8.0	0.0	0.0	40.7	36.0	14.0	6.2	3.1
11.	72.0	24.0	4.0	0.0	0.0	46.9	35.9	9.4	6.2	1.6
12.	52.0	20.0	20.0	0.0	0.0	28.6	46.0	22.2	3.2	0.0
13.	28.0	8.0	4.0	16.0	44.0	27.4	21.0	35.5	16.1	0.0
14.	62.5	12.5	25.0	0.0	0.0	54.0	23.8	14.3	6.3	1.6

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was
 checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom;
 0--not performed

+ Not all participants responded for each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to Health Appraisal

Area IV Activity*	Nurses employed by Boards of Education				Nurses employed by Departments of Health*					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	41.7	16.7	37.5	4.2	0.0	16.4	44.2	9.8	19.7	9.8
2a.	59.1	13.6	13.6	13.6	0.0	15.7	31.3	25.5	23.5	3.9
2b.	56.0	32.0	12.0	0.0	0.0	27.4	32.2	24.2	16.1	0.0
3.	68.0	4.0	4.0	16.0	8.0	23.8	17.4	7.9	22.2	28.6
4.	28.0	8.0	8.0	12.0	44.0	4.7	6.2	9.4	32.8	46.9
5.	28.0	8.0	8.0	20.0	36.0	8.1	11.2	12.9	32.2	35.5
6.	44.0	0.0	4.0	16.0	36.0	3.2	6.3	4.8	22.2	63.5
7.	44.0	20.0	12.0	8.0	16.0	12.5	15.6	28.1	10.9	32.8
8.	0.0	0.0	0.0	28.0	72.0	0.0	0.0	0.0	17.4	82.5
9.	29.2	12.5	12.5	12.5	33.3	10.0	11.7	28.3	20.0	30.0
10.	32.0	4.0	4.0	20.0	40.0	3.1	3.1	4.7	9.4	79.7
11.	40.0	0.0	20.0	10.0	30.0	7.8	9.4	6.2	10.9	65.6
12.	79.2	8.3	8.3	4.2	0.0	59.0	29.5	8.2	3.3	0.0
13.	72.0	12.0	12.0	4.0	0.0	33.3	41.3	19.0	4.8	1.6
14.	12.5	0.0	8.3	25.0	54.2	4.9	6.6	1.6	34.4	52.4
15.	20.0	4.0	0.0	4.0	72.0	1.6	1.6	12.7	11.1	73.0
16.	24.0	8.0	0.0	36.0	32.0	4.9	4.9	19.7	45.9	24.6
17.	36.0	12.0	16.0	24.0	12.0	14.5	22.6	30.6	27.4	4.8
18.	0.0	0.0	4.0	16.0	60.0	8.1	24.2	17.7	27.4	22.6
19.	20.8	4.2	6.3	20.8	45.8	12.9	17.7	19.3	30.6	19.3
20.	33.3	8.3	4.2	20.8	33.3	22.6	32.2	29.0	16.1	0.0
21.	12.5	16.7	41.7	20.8	8.3	6.4	9.3	43.5	17.7	12.9
22.	8.3	12.5	41.7	12.5	25.0	3.2	14.3	28.6	11.1	42.8

APPENDIX D (continued)

Area IV Activity (1)	Nurses employed by Boards of Education				Nurses employed by Departments of Health					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0 (11)
23.	20.0	12.0	40.0	16.0	12.0	8.3	23.3	38.3	11.7	18.3
24.	16.7	0.0	16.7	33.3	33.3	11.2	8.0	43.5	29.0	8.0
25.	16.0	8.0	20.0	28.0	28.0	11.2	14.5	35.5	29.0	9.7
26.	0.0	4.3	8.7	8.7	78.2	4.8	6.3	11.1	38.0	39.7
27.	4.3	4.3	13.1	8.7	69.6	8.1	6.4	14.5	37.1	33.8
28.	56.0	12.0	16.0	8.0	8.0	26.6	21.6	15.0	13.3	23.3

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

+ Not all participants responded for each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to Counseling and Guidance

Area V Activity*	Nurses employed by Boards of Education				Nurses employed by Departments of Health†					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0x (11)
1.	68.0	20.0	12.0	0.0	0.0	20.6	30.2	25.4	19.0	4.8
2.	64.0	20.0	12.0	4.0	0.0	19.0	36.5	20.6	19.0	4.8
3.	64.0	12.0	16.0	4.0	4.0	21.0	27.4	27.4	14.5	9.7
4.	48.0	16.0	20.0	16.0	0.0	19.3	24.2	22.6	21.0	12.9
5.	56.0	16.0	12.0	12.0	4.0	16.1	29.0	22.6	16.1	16.1
6.	45.8	37.5	16.7	0.0	0.0	37.5	31.2	25.0	6.2	0.0
7.	54.2	25.0	16.7	4.2	0.0	25.0	31.2	28.1	6.2	9.4
8.	41.7	29.2	12.5	12.5	4.2	25.0	39.0	21.9	11.0	3.1
9a.	33.4	26.6	26.6	6.7	6.7	16.2	18.6	25.5	32.5	7.0
9b.	58.3	29.2	8.3	4.2	0.0	45.9	31.1	11.5	9.8	1.6
10.	8.3	4.2	8.3	20.8	58.3	3.1	6.2	15.6	26.6	48.4
11.	4.3	8.7	21.7	17.4	47.8	1.6	11.1	14.3	6.3	66.7
12.	16.7	25.0	25.0	20.8	12.5	12.7	23.8	31.7	19.0	12.7
13.	83.3	12.5	4.2	0.0	0.0	37.5	18.7	23.4	14.0	6.2
14.	54.2	29.2	12.5	0.0	4.2	28.1	23.4	26.6	12.5	9.4
15.	70.8	16.7	12.5	0.0	0.0	28.6	23.8	19.0	17.4	11.1

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

† Not all participants responded for each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to Health Education

Area VI Activity*	Nurses employed by Boards of Education				Nurses employed by Departments of Health [†]					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	13.1	30.4	17.4	13.1	26.1	4.9	4.9	22.9	37.7	29.5
2.	54.2	29.2	12.5	4.2	0.0	16.4	24.6	26.2	16.4	16.4
3.	75.0	20.8	4.2	0.0	0.0	46.9	29.7	15.6	7.8	0.0
4.	41.7	20.8	12.5	20.8	4.2	9.8	13.1	24.6	14.8	27.7
5.	62.5	16.7	16.7	4.2	0.0	20.3	23.4	40.6	12.5	3.1
6.	4.2	0.0	4.2	4.2	87.5	0.0	0.0	0.0	1.6	98.3
7.	8.7	0.0	0.0	13.1	78.2	0.0	0.0	4.8	21.0	74.2
8.	12.0	20.0	36.0	12.0	20.0	1.6	14.5	35.5	37.1	11.2
9.	30.4	39.1	21.7	4.3	4.3	17.7	24.2	25.8	21.0	11.2
10.	32.0	20.0	32.0	12.0	4.0	15.9	15.9	26.6	30.2	9.5
11a.	13.1	13.1	13.1	43.4	17.3	10.0	8.3	20.0	60.0	1.6
11b.	7.7	7.7	0.0	53.8	30.6	8.3	0.0	8.3	62.5	20.8
12.	8.3	4.2	0.0	56.3	29.2	1.6	9.7	17.7	48.4	22.6
13.	0.0	0.0	0.0	17.3	82.5	0.0	0.0	9.8	22.9	67.2
14.	40.0	32.0	20.0	8.0	0.0	22.2	30.2	25.4	19.0	3.2
15.	32.0	24.0	20.0	20.0	4.0	16.1	27.4	25.8	24.2	6.4
16.	12.5	8.3	20.8	4.2	54.2	3.2	11.2	24.2	30.6	30.6

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4---continuously; 3---often; 2---infrequently; 1---seldom; 0---not performed

† Not all participants responded for each activity

APPENDIX D (continued)

Percentage Responses for 89 Participants According to Frequency of Performance for Functions Relating to Health Protection and Safety

Area VII Activity#	Nurses employed by Boards of Education				Nurses employed by Departments of Health*						
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1.	0.0	20.0	32.0	8.0	40.0	1.6	3.2	9.5	31.7	54.0	
2.	4.0	4.0	36.0	36.0	20.0	8.8	9.7	24.2	40.3	17.7	
3.	4.2	12.5	33.3	12.5	37.5	4.8	1.6	9.1	33.8	50.0	
4.	25.0	16.7	16.8	29.2	16.7	4.4	3.2	8.1	21.0	62.9	
5.	16.7	16.0	20.0	24.0	29.2	6.4	8.2	11.5	32.8	41.0	
6.	20.0	12.0	4.0	12.0	20.0	3.3	4.9	9.8	32.8	49.2	
7.	72.0	17.4	8.7	13.1	0.0	12.7	34.9	19.0	22.2	11.1	
8.	52.2	20.8	25.0	4.2	8.7	11.1	19.0	30.2	33.3	6.3	
9.	45.8	8.3	8.3	4.2	4.2	9.7	19.3	11.2	17.7	41.9	
10.	20.8	8.3	8.3	4.2	58.3	3.3	11.5	6.6	9.8	68.8	
11.	25.0	8.3	8.3	12.5	45.8	3.3	0.0	1.6	3.3	91.8	
12.	29.2	20.8	25.0	16.7	8.3	0.0	6.6	22.9	36.1	34.4	
13.	33.3	20.8	16.7	12.5	16.7	3.3	5.0	30.0	33.3	28.3	
14.	41.7	20.8	25.0	8.3	4.2	0.0	3.2	12.7	22.2	61.9	
15.	83.3	4.2	4.2	4.2	4.2	11.5	24.2	21.0	14.5	29.0	
16.	22.7	18.1	13.6	13.6	31.8	6.3	6.3	20.6	33.3	33.3	
17.	41.7	4.2	16.7	33.3	4.2	15.9	19.0	20.6	36.5	7.9	
18.	20.8	4.2	4.2	37.5	33.3	11.2	8.1	12.9	27.4	40.3	
19.	20.8	4.2	8.3	41.7	25.0	14.0	14.0	9.4	50.0	12.5	
20.	20.8	4.2	4.2	45.8	25.0	14.8	13.1	14.8	47.5	9.8	
21.	8.7	4.3	4.3	43.5	39.1	8.1	11.2	6.4	54.8	19.3	
22.	8.7	4.3	17.4	43.5	26.1	11.1	9.5	27.0	47.6	4.8	

APPENDIX D (continued)

Area VII Activity	Nurses employed by Boards of Education				Nurses employed by Departments of Health					
	4 (2)	3 (3)	2 (4)	1 (5)	0 (6)	4 (7)	3 (8)	2 (9)	1 (10)	0 (11)
23.	29.2	12.5	4.2	33.3	20.8	11.5	14.8	8.2	32.8	32.8
24.	73.9	21.7	4.3	0.0	0.0	31.1	39.3	22.9	4.9	1.6
25.	37.5	12.5	6.3	29.2	12.5	10.0	10.0	23.3	30.0	26.6

* Activities are listed by number; the complete statement is found in Appendix A
 x Percentages were calculated from the number performing each activity, which was checked according to code: 4--continuously; 3--often; 2--infrequently; 1--seldom; 0--not performed

+ Not all participants responded for each activity

APPENDIX D (concluded)

Percentage of Responses of 89 Participants Showing
Public Health Nursing and/or
School Nursing Preparation

Preparation (1)	Nurses employed by Boards of Education		Nurses employed by Departments of Health	
	Responses (2)	Per Cent (3)	Responses (4)	Per Cent (5)
Public Health Nursing in the Program.....	4	16.0	16	25.0
Public Health Nursing Following the Program.	8	32.0	33	51.6
No Additional Prepara- tion.....	2	8.0	9	14.0
Public Health Nursing In and Following the Program.....	2	8.0	5	7.9
Some Additional Prepa- ration*.....	9	36.0	1	1.6
Total.....	25	100.0	64	100.1

* Two nurses who had received Public Health Preparation also had additional preparation

Typed by
O. W. Day