EDUCATIONAL PROGRAMS FOR THE PREPARATION OF PARAMEDICAL PERSONNEL

REPORT

To

THE GOVERNOR

And

THE GENERAL ASSEMBLY OF VIRGINIA

House Document No. 2

State Council of Higher Education for Virginia
1973
1974

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INTRODUCTION

Access to health care services is a major issue being addressed by individuals and groups at every level of government and by many other organizations in our society. Health planners and providers are concerned with physical access as well as financial access to health services for citizens. Access to health care services is directly related to the health manpower available to deliver these services and the proper utilization of this manpower.

The General Assembly of Virginia recognized the need for improving the access of primary health care to Virginia's citizens by improving the utilization of health manpower, particularly in rural areas. This recognition was demonstrated in HJR 127 adopted during the 1972 session directing the State Council of Higher Education for Virginia "to develop and recommend training curricula and an implementation plan for paramedical personnel." A companion resolution (HJR 131) directed the State Health Department "to develop criteria and recommend legislation related to paramedical personnel."

The State Health Department in responding to House Joint Resolution 131 will be defining the roles of assistants to physicians and dentists, identifying appropriate certification requirements (if any), and indicating the extent of required supervision, control and direction.

The State Council of Higher Education has utilized its Committee on Education for Health Professions and Occupations (Appendix I) as the primary resource in responding to the General Assembly. Members of the Committee as well as staff members of the State Council have served on the Consultative Group to the State Commissioner of Health in the study of legislation needed for the functioning of paramedical personnel. Since the studies of the two state agencies were felt to be interdependent, a sub-committee of the State Council's Committee and the Consultative Group were established for joint effort and liaison.

A copy of the first draft of this report was mailed to twenty-seven individuals (Appendix II) representing educational programs, professional associations, and licensing agencies for their review and suggestions. Thirteen responses were received with suggestions for clarification, additions, or changes in the content. The suggestions of the respondents were most useful and many of the suggestions have been incorporated in the report.

BACKGROUND INFORMATION

The Office of Comprehensive Health Planning, Virginia State Health Department, released a "Report of Health Services for Rural Virginia" in the summer of 1971. This study was undertaken and the report published at the request of the Health Sub-committee Rural Affairs Study Commission, chaired by the Honorable Donald G. Pendleton. One section of the report, dealing with extending the physician's and dentist's capabilities, is found in Appendix III.

The report, presented to the Health Sub-committee by the Commissioner of Health, contained a recommendation related to physician and dental support personnel. The recommendation made was that "various forms of delegation of duties will need to be made by highly skilled professionals to less highly trained allied workers." The shortage of physicians and dentists, particularly in rural areas, and the need to maximize effective use of the physician's and dentist's time were cited as the major reasons for this recommendation.

Sub-sections of this recommendation specifically identified the need for legislation to clarify the legal role of nurse practitioners and/or physician assistants, dental assistants, and dental hygienists and the educational programs needed to prepare these practitioners.

These recommendations were translated into two resolutions, which were introduced by the Honorable Donald G. Pendleton, and passed by the 1972 session of the General Assembly of Virginia. House Joint Resolution 127 was directed to the State Council of Higher Education as follows:

House Joint Resolution No. 127

WHEREAS, the furnishing of necessary health care for all citizens in all areas of the Commonwealth will require more nurses and more medical and dental technicians and assistants; and

WHEREAS, nurses and medical and dental technicians and assistants, hereinafter referred to as "paramedical personnel," could perform many of the functions which presently only licensed physicians and dentists are permitted by law to perform; and

WHEREAS, plans are underway to eventually permit paramedical personnel to be licensed, or certificated, to perform such functions, thereby affording physicians and dentists the opportunity to care for a larger number of patients; and

WHEREAS, such a plan for providing expanded health care services will require a large number of paramedical personnel;

NOW, THEREFORE BE IT RESOLVED by the House of Delegates, the Senate of Virginia concurring, That the State Council of Higher Education is hereby directed to develop and recommend the curricula and the necessary procedures for implementing educational efforts designed to train such paramedical personnel.

The schools of medicine of the University of Virginia and the Medical College of Virginia, Health Sciences Division of Virginia Commonwealth University, the School of Dentistry of such Medical College, the State Department of Health and any other departments and agencies of the State government whose assistance is needed, shall assist the Council in this task.

The Council is encouraged to counsel with the State Department of Health, but shall in no way interpret this directive as being in

conflict with, or a duplication of, the House Joint Resolution directing the State Department of Health to develop criteria and recommend legislation relating to paramedical personnel.

The Council shall complete this task and make its report to the Governor and the General Assembly not later than November one, nineteen hundred and seventy-three.

This resolution was referred to the State Council's Advisory Committee on Education for Health Professions and Occupations. The Committee recommended that members of the State Council staff meet with Mr. Pendleton, sponsor of the resolution, to clarify terminology and to define the State Council's role in "curriculum development." The following definitions were discussed with Mr. Pendleton and accepted for *this study:*

Paramedical personnel are health personnel who are prepared to provide primary health services in a community under the supervision of or in collaboration with a physician(s) or a dentist(s). Health personnel other than independent practitioners are referred to as "allied health." The terminology "paramedical" which was previously utilized by the American Medical Association was officially changed to "allied health" by the AMA House of Delegates upon recommendation of AMA Council on Medical Education.

Primary health care concerns itself with diagnosis and treatment of acute disease and injury, preventive health measures, management of chronic diseases, and continuing support and care. It is the point of entry into medical and dental care.

Two major categories are defined in an assistive or collaborative role with physicians and two categories with dentists. These categories include nurse practitioners, physician assistants, dental hygienists, and dental assistants.

The State Council, through its Advisory Committee on Education for Health Professions and Occupations, has attempted to collect information about the current educational programs in the state preparing "physician and dentist extendors" and to determine the developments nationally which may influence the situation in Virginia. Since the educational preparation of these personnel must relate to the functions defined for these personnel in any legislation recommended, constant liaison with the State Health Department has been essential.

PHYSICIAN ASSISTANTS

Programs for training physician support personnel are proliferating at a tremendous rate. The original program for the training of physician assistants was started at Duke University in 1965 with four students, three of whom completed the course. As of September 1972, the Bureau of Health Manpower identified 84 programs for the preparation of physician assistants. These programs are different stages of development, vary in length, may award a degree or a certificate, and prepare different types of assistants. Requirements for admission to these programs differ particularly in the area of medical experience required. For example, some are designed specifically for those individuals who have extensive experience as military corpsmen, while others are designed for those individuals who have had at least 2,000 hours of health-related experience.

The current interest in physician assistants is related to a number of developments. These include: (a) the increasing demand for health services; (b) the shortage and maldistribution of physicians to render the health care that is needed; (c) the scientific and technological advances facilitating the more effective delivery system; (d) the recognition of health as right of every citizen; (e) the rapid rise in the costs of medical care; and (f) the evidence based on demonstrations, particularly by medical personnel in the armed forces, that certain health services can be provided adequately and safely by persons with substantially less training than the physician.

"Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician" were adopted by the AMA House of Delegates in December, 1971 (Appendix III). The AMA Council on Medical Education has established an approval process for those programs seeking this approval. This process consists of filing an application which is reviewed by a Joint Review Committee on Educational Programs for the Assistant to the Primary Care Physician. This Review Committee consists of three representatives from each of the following: American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Society of Internal Medicine. If the program appears to be in compliance with the "Essentials," an on-site survey will be scheduled to evaluate the educational program. This on-site survey is conducted by a team of medical educators chosen from names submitted by the co-sponsoring organizations. A report of the on-site visit is submitted to the Review Committee which may recommend Approval, Preliminary Approval, Provisional Approval (new program), or Non-Approval.

In September, 1972 the American Medical Association's Council on Medical Education had granted the approval to sixteen educational programs for the assistant to the primary care physician. Seven additional programs were granted approval by the AMA in March, 1973. Six of the approved programs are located in southern states including Alabama, Mississippi, Georgia, North Carolina (2), and West Virginia.

The State Council of Higher Education for Virginia has not received any requests for planning approval for physician assistants programs. A letter from Dr. Melvin A. Pittman, Dean, School of Sciences, Old Dominion University, in response to a review of the preliminary of this report indicates that negotiations are underway among Old Dominion University, Eastern Virginia Medical School, and the Navy concerning a program to prepare physician assistants.

Both of the state-supported medical schools have taken the position that the nurse practitioner program is the more acceptable approach to extending

the services of the primary care physician. The Medical Society of Virginia has not taken an official position on the utilization of physician assistants.

In 1970 the Medical Society of Virginia initiated a study to determine how a physician uses his time. Their study, funded by the Office of the Virginia Comprehensive Health Planning, was done under contract with Dr. Ivan J. Fahs of Minnesota. The final report became available in May, 1973. This report contains no recommendations. According to the report, "the investigator has attempted to provide as much reliable data as possible without infringing on the role of the advisory group which is to develop recommendations."

Based on a 49.5 percent (1,583) response of the 3,200 physicians surveyed for this "Physician Time Study," 28 physician assistants were engaged in full-time practice in Virginia and eight men were employed on a half-time basis dividing their effort between more than one physician. In the overall study, 80 percent of the physicians were found to be satisfied with number and quality of health personnel in their offices. In response to the question of utilizing a physician assistant, 38 percent agreed that it would be helpful, 34 percent felt that it would not, and 27 percent reserved an opinion. Interviews with 24 physicians indicated that there is varied opinion about the utilization of physician assistants with both favorable and unfavorable reaction.

During the 1973 session of the General Assembly, the Medical Practice Act in Virginia was amended to provide for the employment of physician assistants by physicians, osteopaths, or podiatrists licensed in Virginia. The State Board of Medicine is now formulating rules and regulations for the physician assistant. It is anticipated that these rules and regulations will specify the training requirements for assistants to physicians who must be registered by the employing physician with the State Board of Medicine. The State Council of Higher Education for Virginia will utilize the guidelines established by the American Medical Association and the training requirements established by the State Board of Medicine in reviewing any requests for physician assistants programs.

NURSE PRACTITIONERS

The functions of the professional registered nurse have undergone constant changes in direct relation to the advances in medical science, the increased demand for health services, and the shortage of qualified health personnel. The physician shortage has dictated that the professional nurse be utilized to fill the gap in assuming functions ordinarily considered medical practice. In turn, the professional nurse has delegated more and more functions to ancillary nursing personnel -- the licensed practical nurses and nursing assistants.

In 1971 the Secretary of Health, Education, and Welfare established a Committee to Study Extended Roles for the Nurse. The report of this Committee, extending the scope of nursing practice (a report of the Secretary's Committee to Study Extended Roles for the Nurse) published in 1971, defines the nurse as "a provider of personal health care services, working independently with physicians and others to keep people well and to care for them when they are sick. The role of the nurse cannot remain static — it must change along with that of all other health professionals, which means the knowledge and skills of nurses need to be broadened."

The conclusions and recommendations of the Secretary's Committee relate directly to the task assigned to the State Council by the General Assembly and are found in Appendix IV. These are in the areas of education, legal consideration, interprofessional relationships between physicians and nurses, and impact on health care delivery.

The two Virginia state-supported medical schools in cooperation with the schools of nursing at the universities have already planned and/or initiated educational programs for nurse practitioners. A Pediatric Nurse Practitioner Program was established by the Department of Pediatrics, School of Medicine at the University of Virginia several years ago. Thirty nurses have completed the program at the University. The primary responsibility for the Pediatric Nurse Practitioner Program was transferred to the School of Nursing the first of June, 1972. The program will still have the support and cooperation of the Department of Pediatrics, School of Medicine, and in essence will be a joint program of the two schools. The course will be one semester in length, taught three times each year. One semester will be limited to the enrollment of students who are candidates for the master's degree. The other two semesters will be open to graduates of all types of nursing programs who will be admitted as special students in the graduate division. Graduates of the program will receive nine semester hours of graduate credit. Ten students will be admitted for each session. Qualifications for admission are a current license to practice as a professional nurse and at least two years experience. In the selection of students, a major emphasis is placed on the interviews and references and an evidence of a commitment to practice following the completion of the program is given priority. About ten applications are received for each space available.

An Adult Nurse Practitioner Program was established at the University of Virginia in 1969 on an experimental basis. A more formal course was established in 1971 with six nurses enrolled in the first class and six nurses enrolled in the second class. The course is eighteen weeks in length including the lectures and clinical laboratory. Students are required to hold a current license as a registered professional nurse, demonstrate a capacity for undertaking the program as evidenced by transcripts of past education and work experience records, and have a job commitment following the completion of the program. One of the problems encountered with the group completing the course last year was the lack of job opportunities. This program will move into a program for the preparation of family nurse practitioners if funds

become available. A statement prepared by Dr. Robert A. Reid (Appendix V) outlines the specific goals of the program.

The Medical College of Virginia — Virginia Commonwealth University is planning a family nurse practitioner program for initiation in 1973, probably September. A MCV-VCU Nurse Practitioner Liaison Committee has been established with representatives from various agencies or organizations. The basic objectives of the program are:

1. To establish a training program for family nurse practitioners.
2. To train the family nurse practitioner to use the problem-oriented records system.
3. To attempt to solve the problem of geographic maldistribution of health professionals by identifying nurse and sponsoring practices in the areas of need.
4. To establish operational research capability in the existing practices so as to determine the effects of introducing nurse practitioners into practices including changes in efficiency and effectiveness as well as the effects on patient care.

The program is being planned cooperatively by the Department of Family Practice, School of Medicine, and the School of Nursing. It is designed to take the training to the areas of need utilizing family physicians and specialists as instructors. The curriculum will be packaged including lesson plans, slides, tapes, etc., for use by the physician in the area. The course will be given over a nine-month period on the afternoon the nurse is free and in the evenings. This initial effort will be directed toward training nurses already employed and utilizing the employing physician in the training. This allows the nurse to remain employed in her home area. By involving the physician in the training program, he will be trained to utilize the nurse properly in an expanded role. In addition, nurses will be trained in the family practice centers along with the family practice residents. This will probably be initiated first in the family practice center at Riverside Hospital with gradual expansion to the center in Fairfax and the one in Blackstone. The potential for training inactive nurses and public health nurses in the areas is also being considered. According to information submitted by Old Dominion University, nurse practitioners are being considered by ODU in conjunction with Eastern Virginia Medical School after Old Dominion University has achieved full accreditation from the National League for Nursing.

The Department of Family Practice at MCV-VCU recently received a grant to support efficiency studies of primary health care delivery by physicians and other health care team members. This grant is a part of a total study being conducted by eight institutions. This study will be part of the research element of the family nurse practitioner program.

The State Health Department has initiated a program to utilize public health nurses in an expanded role in areas of the state where physicians are not available. The Office of Comprehensive Health Planning is currently funding a program for the preparation of four nurses for primary care roles. These nurses will function under the supervision of a local physician either the local health director or a private physician. Job classifications have been established for two levels of family nurse practitioners in the State Health Department. A description of the functions of these nurse practitioners is found in Appendix VI.

Expanding the role of the nurse has the support of the Virginia Nurses' Association. That association adopted a Statement on Professional Nursing Practice at the 1971 Annual Convention which recognized that "professional nursing must be aware and responsive to the changing health needs and adapt

its practice to fulfill these needs." At this same convention a resolution was adopted to "endorse the concept of an expanded role for the professional nurse and encourage the establishment of programs to prepare nurses for expanded roles, particularly as Family Nurse Practitioners."

In April, 1972 the Virginia Board of Nursing adopted a "Statement of Belief and Proposal for Providing for the Extension of Nursing Practice" (Appendix VII). The 1973 General Assembly amended the Medical Practice to provide for the joint promulgation of rules and regulations for nurses practicing in an expanding role by the Virginia State Board of Medicine and the Virginia State Board of Nursing. The two Boards are currently developing these rules and regulations.

Nurse practitioner programs are not designed to confer a new degree, but are either a part of an already existing degree or a continuing education course built upon the basic nursing education. Under these circumstances, the State Council would not review these programs under the existing review process. The State Council's policies and procedures for review of new programs are currently limited to those programs which lead to a degree. However, the Advisory Committee on Education for Health Professions and Occupations is responsible for planning and coordinating all post-secondary educational programs for health professions and occupations. The State Council staff is currently considering revisions of the review procedure with potential inclusion of certificate and diploma offerings. However, since the State Council of Higher Education for Virginia is responsible for the "planning and coordination of all post-secondary educational programs for all health professions and occupations," the State Council should be informed of any plans for new nurse practitioner programs and the Advisory Committee on Education for Health Professions and Occupations should have an opportunity to review the program.

DENTAL HYGIENISTS

The dental hygienist has been a recognized auxiliary member of the dental profession since the early 1920's. However, the growth of formalized programs for the education of dental hygienists was slow until the early 1950's. The number of programs for the preparation of dental hygienists has grown rapidly since the early 1960's.

The State of Virginia currently has two educational programs for dental hygiene, both located in urban universities. The program at Old Dominion University offers both a two-year certificate program and the four-year bachelor of science program. All students enrolled in the program complete requirements for licensure at the end of the second year. Students who wish may continue in the program leading to a bachelor of science degree. Old Dominion University initiated the program in September, 1967 as an associate degree program and has graduated a total of 138 students. The enrollment for 1972-73 in dental hygiene at Old Dominion University was as follows: first year — forty-two; second year -- thirty-five; third year — twenty; fourth year -- twelve. The attrition rate in the first year has been approximately twenty-five percent. Efforts are being made to more carefully screen students in order to reduce the attrition rate. However, the University is also very cognizant of the need to admit students from rural and inner city areas and the necessity for lowering admission requirements in some instances. The current plans are to increase enrollment beginning in the fall of 1973 to forty-eight first-year students. The bachelor of science program was initiated in 1969. Thirty-three students have completed this program, including the 1973 graduates.

The program at the Medical College of Virginia — Virginia Commonwealth University was initiated in the fall of 1969. This program is offered as an upper division major (last two years only) leading to a bachelor of science in dental hygiene. All students who enrolled are accepted from the academic division of the University or other two -- or four-year colleges/universities. Ten students have completed the program. The enrollment in 1972-73 was fifteen fourth year students to sixteen third year students. The University does not plan to expand its current enrollment and will continue to admit sixteen students each year. The attrition rate has been zero since the program began.

Dental hygiene programs are currently being planned in community colleges in three locations. Virginia Western Community College has approval from the State Council of Higher Education to initiate a program in the fall of 1973. The State Council granted planning approval to Northern Virginia Community College for initiation of a program in the fall of 1973. At the request of the College, this planning approval has been extended for one year. J. Sargeant Reynolds Community College has been granted planning approval for a program to be initiated in the fall of 1974 (pending approval of the program proposal). The program at J. Sargeant Reynolds will be developed in cooperation with the School of Dentistry at MCV-VCU. It is hoped this program will be developed so that it could also be a cooperative program with other community colleges in Virginia which will hopefully provide a mechanism for overcoming some of the maldistribution of dental hygienists. Since the initiation of these programs is very expensive, requiring specialized equipment and faculty, the cooperative MCV-VCU-J. Sargeant Reynolds Community College program offers the potential for increasing personnel without duplicating expensive facilities.

According to several sources, in current practice the dental hygienist is less than fully utilized in providing services for which she has been trained. The poor utilization is attributed to a manpower shortage and the non-systematic use of oral health manpower. There has been a reluctance on

the part of dentistry to delegate independent work units to dental hygienists. In addition, the licensure laws are felt to be somewhat restrictive. Licensure is required in all fifty states with similar requirements for eligibility for license. However, the duties defined by licensing agencies for dental hygienists vary considerably from state to state. In some states, the laws if rigidly interpreted, would require such extensive supervision that the dental hygienist would be of no value in the delivery of care.

The Dental Practice Act in Virginia was amended in 1972 to provide for the Virginia Board of Dentistry to adopt rules and regulations for the practice of an expanded role for the dental hygienist. According to the Dental Laws of Virginia, dental hygiene includes "cleaning and polishing teeth and assisting the members of the dental profession in providing oral health care and oral health education to the public." According to the rules and regulations established by the Virginia Board of Dentistry, the dental hygienist may perform any of the twenty-one procedures defined for the dental assistant plus three additional functions:

1. Scaling with hand instruments or ultrasonic devices.
2. Perform an original or preliminary clinical examination of teeth and surrounding tissues for assisting the dentist in his or her diagnosis.
3. Take impressions for diagnostic purposes.

In March, 1973 the State Council examined the current supply of dental hygienists in Virginia. The cards for licensed dental hygienists maintained in the Office of the Virginia Board of Dentistry were reviewed to determine the total number of dental hygienists licensed in Virginia. Information obtained from the cards included the school from which the hygienist was graduated, the year of graduation, the employment status, location of employment, and the dentist(s) or agency employing the hygienist. A total of 609 dental hygienists were licensed to practice in Virginia as of January 1, 1973. Of this number 318 were actually employed full or part time and ninety-eight were not employed. The remaining 193 licensed dental hygienists resided out of Virginia. However, of those who do practice in Virginia, about one-third of the licensed hygienists are employed by more than one dentist. Information on the number of hours each dental hygienist actively practices is not currently available.

The distribution of dental hygienists in the various areas of the state is quite uneven. Almost one-half of the active dental hygienists are located in one planning district (eight -- Northern Virginia) and eighty-five percent of all active dental hygienists in Virginia are employed in three planning districts (eight, fifteen — Richmond, and twenty — Norfolk). Three planning districts have no active dental hygienists (two, thirteen, and twenty-two). The distribution of dental hygienists by planning district is found in Appendix VIII. Currently, Virginia is attracting a large number of dental hygienists from educational programs in other states. Approximately seventy-five percent of all active dental hygienists practicing in Virginia are graduates of out-of-state dental hygiene programs.

According to the U.S. Department of Labor, Bureau of Labor Statistics, employment requirements for dental hygienists are expected to reach 33,500 by 1980, an increase of about 109 percent above the 16,000 employed in 1968. This increase in requirements is attributed to an expanding population, the growing awareness of a need for regular dental care, increased dental care programs for children, and dental prepayment plans. More dentists are expected to be engaged in group practice resulting in more utilization of dental auxiliaries.

The Virginia Dental Association is currently undertaking a dental manpower study. Information obtained from this study will provide data

which will assist in determining dental hygiene manpower requirements for Virginia. This data on requirements can then be compared with the potential supply of dental hygienists expected to graduate from dental hygiene programs in Virginia and the in-migration and out-migration of dental hygienists.

DENTAL ASSISTANTS

The dental assistant's primary function is assisting at the chairside where he plays an active and integral role in dental procedures. Although the dental assistant is not required to be licensed in Virginia, the "Rules and Regulations Governing the Practice of Dentistry and Dental Hygiene," Virginia Board of Dentistry defines twenty-one functions which the dentist may delegate to the dental assistant (Appendix IX).

Although the dental assistant is not required to be licensed, a voluntary certification program does exist. The Council on Dental Education has developed certification standards for dental assistants which govern the operation of certification boards and certification of individual assistants. Certification requires one year of academic training. Unlike dental hygienists, who are required to be licensed, dental assistants are not required to be licensed or certified.

The most recent data on dental assistants employed in Virginia is contained in HEALTH MANPOWER-VIRGINIA 1971. According to data in this publication, 1,348 dental assistants were employed full time and 329 employed part time. Only 139 of the full time and thirty-four of the part time assistants were certified as dental assistants. This would seem to indicate that most dentists are training their own assistants rather than employing assistants who have completed the one-year program. This could be due to the preference of the dentists or the lack of trained personnel. The study being planned by the Virginia Dental Association (referred to earlier) should supply information which will determine the dentists' desire to train their own assistants or their desire to employ already trained personnel.

Three formal programs for the preparation of dental assistants are available in colleges and universities. These are located at Old Dominion University, Northern Virginia Community College, and Virginia Western Community College. J. Sargeant Reynolds Community College and Wytheville Community College plan to initiate programs in the fall of 1973.

Old Dominion University initiated the dental assistants program in 1968. Since its initiation 111 students have completed the program. The current enrollment is forty. Programs established in the community colleges are four quarters in length with students entering the program in the fall term and completing the program at the end of the summer term. Virginia Western Community College graduated six students in August, 1970; twenty in August, 1971; nineteen in August, 1972, and anticipates eleven completing the program in August, 1973. According to the director of the program, more students could be accepted, but the college is finding it difficult to recruit students for the program. There are job opportunities available in the area.

The first students were graduated at Northern Virginia Community College in August, 1971. Eleven students completed the program that year, seventeen in August of 1972 and thirty-eight or thirty-nine are expected to graduate in 1973. According to the director of the program, the pool of potential students for the program exceeds the spaces available for accepted students. Forty-eight students have been accepted for enrollment in the fall of 1973 with twenty-five on the waiting list for admission. According to the director of the program, graduates are having no difficulty finding employment.

J. Sargeant Reynolds Community College expects to enroll fifteen to twenty students in the fall of 1973. Wytheville Community College expects to enroll twelve to fifteen students.

SUMMARY

At the present time it is very difficult to determine the current supply of the various categories of health personnel, where they are located, whether they are actively practicing, their age, their highest level of education, and how they are being utilized. Without this basic data, which must be collected on an on-going basis, it is impossible to project requirements even for the present health care delivery system. Adding to this dilemma is the necessity for planning for the future which requires projecting changes which will occur in the delivery system.

The State Council of Higher Education and the Advisory Committee on Education for Health Professions and Occupations recognize their responsibility for "planning and coordinating educational programs for all health professions and occupations." With the 1973 $50,000 appropriation from the General Assembly, the State Council has initiated a study of health manpower. This study has two basic goals:

1. To develop a state-wide plan for the education of health manpower.
2. To develop an information system for health manpower.

In achieving these goals, the State Council will need to determine current and future supply, current and future requirements, and the costs and financing involved in providing Virginia with sufficient health manpower to meet the health care needs of the citizens of Virginia. Since the planning process is an on-going and a major function of the State Council, an information system for health manpower is essential to the planning and decision making process.

The changes of health care delivery patterns, technological changes and certification/licensure requirements necessitate continuous education for practitioners in the various health categories. Increasing opportunities for these practitioners to acquire new skills will be essential as techniques, functions, and technology change. For the optimal utilization of practicing health personnel, continuing education opportunities will be necessary.

1. The guidelines established by the American Medical Association's Council on Medical Education in collaboration with the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians and American Society of Internal Medicine be utilized in the development and review any educational programs for the assistant to the primary care physician.

2. Any programs being planned for the various nurse practitioner roles be submitted to the State Council's Advisory Committee on Education for Health Professions and Occupations for review and suggestions.

3. That the results of the manpower studies being conducted be utilized in determining the demand for additional dental assistants programs.

4. That quality programs be developed for the education and training of nurse practitioners and physician support personnel in the hope that individuals so prepared may augment physician and nurse manpower, particularly in the area of delivery of health care to the underserved areas of the Commonwealth, i.e. certain rural and inner city areas, and that appropriate support be provided by the General Assembly for these activities.

5. That careful consideration be given to requiring continuing education for primary health care support personnel (nurse practitioners, physician assistants, dental hygienists, dental assistants) and that educational institutions offering basic programs in these areas be encouraged and supported in their efforts to provide continuing education opportunities through the Regional Consortia for Continuing Education.

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APPENDIX I

State Council of Higher Education for Virginia

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APPENDIX II

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Dear ..... :

The State Council of Higher Education for Virginia was directed by the 1972 session of the Virginia General Assembly "to develop and recommend training curricula and an implementation plan for paramedical personnel."

The first draft of this report to the Governor and the General Assembly is enclosed. Our Advisory Committee on Education for Health Professions and Occupations is now reviewing this draft for comments and suggestions.

We would appreciate your comments and suggestions about the first draft of the report. Please feel free to make corrections or suggest additions to the report. I would appreciate receiving your response no later than July 10, 1973.

Thank you for your assistance.

Sincerely,

(Mrs.) Faye L. Peters
Coordinator, Health Professions
and Occupations

APPENDIX III

Excerpts from

THE REPORT ON HEALTH SERVICES FOR RURAL VIRGINIA

The Office of Comprehensive Health Planning
Virginia State Health Department
1971

EXTENDING THE PHYSICIAN'S AND THE DENTIST'S CAPABILITIES

> For the immediate future there are simply not going to be enough physicians or dentists. There must, of course, be a minimum number so that the indispensable things which ONLY a physician can do are provided for. Without this minimum, the working conditions of the doctors who are on the job will be so intolerable in most rural areas that recruitment will be impossible.

The license granted to the physician or dentist is broad indeed. It entitles the holder of the license to practice essentially whatever type of medicine or surgery he considers himself competent to do. The various specialty boards are entirely nongovernmental, operating on a voluntary basis. They do exercise great influence, and largely determine whether or not a specialist will be eligible for hospital staff appointments. Specialist board certification may also be important in malpractice suits.

But the fact remains that physicians themselves, to a very great extent, determine what they do with the education they have received. They do delegate certain responsibilities to nurses and to various kinds of technicians. But they have been extremely hesitant to delegate responsibility for diagnosis and for prescribing treatment, even for simple ailments. With the problems of shortage and maldistribution having become so great, it is clear to many that the *doctors who are available simply cannot continue to do work that could quite satisfactorily be delegated to others.* The armed forces have found it necessary to assign such delegations, resulting in the training and utilization of medical corpsmen who carry very considerable responsibilities which would normally remain in the doctor's hands, but which in military situations involving isolation have been allocated to the corpsman with most acceptable results.

The concept of optimum utilization of highly trained personnel should be used more widely in solving this problem. This concept states, in essence, that workers should spend their time in doing the most complex and skill-requiring tasks that they have been educated or trained to do, leaving the work which required lesser education and training to others. Application of this concept would not permit a highly skilled neurosurgeon to diagnose and treat ordinary cases of upper respiratory infection. For example, in recent decades nurses have been assigned a number of responsibilities that were allocated to house officers, such as giving intravenous injections. Many other examples might be cited.

The nursing profession has devoted considerable study of the various kinds of work which might be assigned to practical nurses, orderlies, and aides, making it possible for fully-trained nurses to concentrate their efforts on nursing tasks which only nurses could do. The time has now come when dentists and physicians must devote much more of their attention to making studies of their work to discover which tasks might be delegated to less skilled workers, as the nurses have done.

The Medical Society of Virginia is currently conducting a study of

physician manpower financed by the State Health Department's Office of Comprehensive Health Planning. The purpose of this study is expressed as follows:

> At a time when it seems unlikely that the manpower needs can possibly be met in the next fifteen years, the Society has elected to find out if by any means (public education, etc.) the physician's time can be used more effectively. We are considering many alternatives — the registered nurse, the physician assistant, the licensed practical nurse, the office aide, and even the computer.

The study is being made by questionnaire and a limited number of interviews, and data are now being tabulated. Similar studies have been made elsewhere, and some experimental programs are already in operation with the aim of extending the physician's capabilities.

> There is a great reluctance on the part of the physician to surrender formally to other health professionals any of his responsibility for patient care. He recognizes his obligation to society for the ultimate, ethical, moral and legal responsibility for the care of the patient and is loathe to relinquish this responsibility to anyone other than another physician.
>
> In earlier times and under other conditions when the physician was fully capable of handling the entire care of his patients, such a posture was feasible. His patients were fewer, the state of the art was much less complex, and what few assistants or aides he had were of limited capability. The scientific and social evolutions of the past quarter century with its accompanying population explosion have made untenable the position that the physician remain the sole purveyor of patient care.
>
> It is now impossible for him personally to provide total care for every patient. Equally impossible is his being able to care for all of the patients clamoring for his help. And the situation grows more hopeless each day. Consider what would happen if tomorrow a well-intentioned Congress provided total health care insurance for all U.S. citizens.
>
> It is precisely at this point in the delivery of services where we have neglected to involve more fully the allied health professional. This century has seen their ranks increase from a ratio of one for every physician in 1900 to the 1970 ratio of fourteen to one. Not only have they grown in numbers, but they are becoming very sophisticated associates. No longer the products of casual informal apprenticeships, they come from well-monitored academic environments. Some of their present training programs, although not as lengthy as a physician's, are as demanding. Within their ranks are talented and dependable professionals quite capable of assuming a part of the ethical, moral, and legal responsibility for the care of the patient.
>
> If the physician is to assume a greater responsibility in the planning and coordination of health care for the individual, the family and the community, he must be freed from many of the tasks which presently consume his time and energy and that could be done as well by someone with equal fervor and reliability but with far less training. [3]

Both the physician and the dentist are now in short supply in Virginia's

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[3] Hamburg, Joseph. Massachusetts Physician 30:40-42, June, 1971.

rural areas. The general opinion seems to be that all possible efforts should be exerted to produce more physicians and more dentists and at the same time to use all reasonable inducements to persuade as many as possible to practice and to settle in rural areas. Work such as the Virginia Council on Health and Medical Care has been performing for a number of years should be continued and augmented.

But predictions are that all this will not meet the need, and that the dentist and the physician must be prepared to delegate much more of their personal responsibility than they have needed to do in the past. The problems of the medical and the dental professions are similar in some respects, but different in others.

Physician Assistant — Nurse Practitioner

There has been a good deal of thinking and discussion as well as some experimentation on the roles which the physician assistant ought to play, also the training and experience he or she should have, in addition to the type of supervision required and the legal position under the medical practice law.

The medical corpsman from the armed forces is one type of person who is working as a physician assistant. The other major type is the nurse who has had special training to prepare her for assuming new responsibilities under medical guidance. There are a number of people who feel that it would be easier in non-military situations for the nurse practitioner and the physician to work together harmoniously, than it might be for the physician to work with the medical corpsman. A third type is the person who has had special training from the beginning.

A real need for experimentation remains. But the need for action leading to the resolution of the problem is immediate.

Nurse practitioners enjoy a familiar relationship with the physician, and they could accept responsibilities beyond those delegated customarily to hospital or public health nurses. Such nurse practitioners should be registered nurses. They should come from the area in which they are to work and they should have at least a year of experience working with a physician in his office and elsewhere as may be required. A post-graduate training of four to six months, preferably supervised by a medical college department of family practice, would provide basic education in the new role. This should be followed by suitable testing before the granting of a certificate of competence. This would provide a basis upon which the nurse practitioner would be able to move from association with a particular physician to work with a different physician as the situation might change.

Addressing the Texas Medical Association, Dr. Edward J. Kowalewski, [4] immediate past president of the American Academy of Family Practice, pointed out the great need for educating more physicians. At the same time he said:

> Personally, I feel that even if we ever have enough practicing physicians, and I don't believe we ever will, we are going to use assistants in our practice to a greater degree.

Dental Hygienist — Dental Assistant

The dental hygienist is a well-established member of the dental team. However, it seems clear that existing restrictions are operating to so restrict the hygienist's activities that her usefulness in extending the dentist's capabilities are seriously impaired. Removal of unnecessary restrictions would

[4] Kowalewski, Edward J. "MDs Must Serve Communities," American Medical News, July 5, 1971.

provide opportunities to find out how much the hygienist could contribute to the solution of Virginia's rural dental problems.

Scholarships for Recruitment of Health Workers

Purpose:

To help recruit health manpower to work in areas of Virginia where critically needed types of health manpower are currently in short supply. A secondary purpose, of very much lower priority, is that of helping needy individual students to secure education or training which will fit them for careers in health work.

Use of the word "scholarships" in describing the program has at times tended to confuse prospective applicants into thinking that the "scholarships" are a reward for good past academic performance rather than a recruitment mechanism. This confusion has led certain recipients of scholarships under the program to feel that they were not really obligated to repay the funds loaned to them in periods of service in areas of Virginia which have serious problems in securing and in retaining health workers.

Present Position:

The legislative base for the scholarship program was changed by 1971 Acts of Assembly, Extra Session, Chapter 231 (Code of Virginia 23-35.1) which made the following provisions:

Physicians -- Scholarship @ $1,500/year

Medical College of Virginia	30
University of Virginia	20
Virginia State College	20

Dentists -- Scholarship @ $1,500/year

Medical College of Virginia	8
University of Virginia	0
Virginia State College	2

Nursing -- Scholarships not to exceed $1,000 each, with no number of scholarships specified, resulting in the number being given each year being dependent on the appropriation available.

Dental Hygienists -- Six scholarships @ $500/year Recipients may choose between the Medical College of Virginia and the Old Dominion School of Oral Hygiene.

In all the above categories scholarships are to be repaid by service in a shortage area on a year-for-year basis.

It appears from the brief investigation made that there is relatively little need for much expansion of the programs listed above for physicians, dentists, and nurses. However, there does seem to be a need for an increase in the basic stipend (loan) per student.

A suggestion was made that the title of the program might be changed to perhaps "Family Practice Incentive Loan Program."

Though the program should certainly be continued, it should not be expected by itself to solve the shortage of health workers in rural or other disadvantaged areas. This is merely one approach to a very large and difficult problem which can be solved only by a well-coordinated multi-faceted approach.

Extension of the "Scholarship" Approach to Allied Manpower Training

If recommendations of this Report are followed in connection with development of assistance to professionals (such as dentists and physicians) and the delegation to such assistants under supervision of limited responsibilities now carried by professionals (physicians and dentists), then there will surely be a need for some kind of a scholarship or loan program for these assistants or allied professional workers. Undoubtedly, the community colleges can help with training programs for some of these allied workers.

Supervision Problems in Training and in Practice

There are important supervision problems in securing and retaining health workers in scarcity areas of the Commonwealth. Among these supervision problems, the following are critical:

(1) Supervision while students are being taught to work in community facilities outside their "home" academic-center clinics.

Unless students have opportunities to work during their education in community facilities, more or less separated from their "home base," they are very unlikely to even consider the possibility of making their careers in scarcity areas, and in family practice situations.

In receiving education in community and family practice the students must, of course, be supervised by their teachers. However, the more senior students must have opportunity to work under "general" rather than only under "direct" supervision.

Arrangements for legal approval of work by students under "general" supervision must be made so that the type of community experience referred to above may be an integral part of the educational process.

(2) Supervision of Allied Workers (dental hygienists, physician assistants).

A similar problem of "direct" vs. "general" supervision arises here. It is particularly acute in rural areas in which, by delegation, the dentist or the physician needs to delegate work so that his (the physician's or the dentist's) highly skilled professional expertise may be spread over a broader area than could otherwise be covered.

Arrangements for legal approval of work by dental hygienists or physician assistants (whether or not the physician assistant has training as a nurse) under "general" supervision must be made. If only "direct" supervision were to be approved, a very large part of the extension possibilities of the dentist or the physician would be lost.

APPENDIX IV

Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician *

Established by

AMERICAN MEDICAL ASSOCIATION
COUNCIL ON MEDICAL EDUCATION

in collaboration with

AMERICAN ACADEMY OF FAMILY PHYSICIANS
AMERICAN ACADEMY OF PEDIATRICS
AMERICAN COLLEGE OF PHYSICIANS
AMERICAN SOCIETY OF INTERNAL MEDICINE

Adopted by the AMA House of Delegates
December, 1971

OBJECTIVE: The education and health professions cooperate in this program to establish and maintain standards of appropriate quality for educational programs for the assistant to the primary care physician, and to provide recognition for educational programs which meet or exceed the minimal standards outlined in these Essentials.

These standards are to be used as a guide for the development and self-evaluation of programs for the assistant to the primary care physician. Lists of these approved programs are published for the information of employers and the public. Students enrolled in the programs are taught to work with and under the direction of physicians in providing health care services to patients.

. . .

DESCRIPTION OF THE OCCUPATION: The assistant to the primary care physician is a skilled person, qualified by academic and clinical training to provide patient services under the supervision and responsibility of a doctor of medicine or osteopathy who is, in turn, responsible for the performance of that assistant. The assistant may be involved with the patients of the physician in any medical setting for which the physician is responsible.

The function of the assistant to the primary care physician is to perform, under the responsibility and supervision of the physician, diagnostic and therapeutic tasks in order to allow the physician to extend his services through the more effective use of his knowledge, skills, and abilities.

In rendering services to his patients, the primary care physician is traditionally involved in a variety of activities. Some of these activities, including the application of his knowledge toward a logical and systematic evaluation of the patient's problems and planning a program of management and therapy appropriate to the patient, can only be performed by the physician. The assistant to the primary care physician will not supplant the

* *"Assistant to the Primary Care Physician" is a generic term.*

doctor in the sphere of the decision-making required to establish a diagnosis and plan therapy, but will assist in gathering the data necessary to reach decisions and in implementing the therapeutic plan for the patient.

Intelligence, the ability to relate to people, a capacity for calm and reasoned judgment in meeting emergencies, and an orientation toward service are qualities essential for the assistant to the primary care physician. As a professional, he must maintain respect for the person and privacy of the patient.

The tasks performed by the assistant will include transmission and execution of physician's orders, performance of patient care tasks, and performance of diagnostic and therapeutic procedures as may be delegated by the physician.

Since the function of the primary care physician is interdisciplinary in nature, involving the five major clinical disciplines (medicine, surgery, pediatrics, psychiatry, and obstetrics) within the limitations and capabilities of the particular practice in consideration, the assistant to the primary care physician should be involved in assisting the physician provide those varied medical services necessary for the total health care of the patient.

The ultimate role of the assistant to the primary care physician cannot be rigidly defined because of the variations in practice requirements due to geographic, economic, and sociologic factors. The high degree of responsibility an assistant to the primary care physician may assume requires that, at the conclusion of his formal education, he possess the knowledge, skills, and abilities necessary to provide those services appropriate to the primary care setting. These services would include, but need not be limited to, the following:

1) The initial approach to a patient of any age group in any setting to elicit a detailed and accurate history, perform an appropriate physical examination, and record and present pertinent data in a manner meaningful to the physician;

2) Performance and/or assistance in performance of routine laboratory and related studies as appropriate for a specific practice setting, such as the drawing of blood samples, performance of urinalyses, and the taking of electrocardiographic tracings;

3) Performance of such routine therapeutic procedures as injections, immunizations, and the suturing and care of wounds;

4) Instruction and counseling of patients regarding physical and mental health on matters such as diets, disease, therapy, and normal growth and development;

5) Assisting the physician in the hospital setting by making patient rounds, recording patient progress notes, accurately and appropriately transcribing and/or executing standing orders and other specific orders at the direction of the supervising physician, and compiling and recording detailed narrative case summaries;

6) Providing assistance in the delivery of services to patients requiring continuing care (home, nursing home, extended care facilities, etc.) including the review and monitoring of treatment and therapy plans;

7) Independent performance of evaluative and treatment procedures essential to provide an appropriate response to life-threatening, emergency situations; and

8) Facilitation of the physician's referral of appropriate patients by maintenance of an awareness of the community's various health facilities, agencies, and resources.

ESSENTIAL REQUIREMENTS

I. EDUCATIONAL PROGRAMS MAY BE ESTABLISHED IN

A. Medical schools

B. Senior colleges and universities in affiliation with an accredited teaching hospital.

C. Medical educational facilities of the federal government.

D. Other institutions, with clinical facilities, which are acceptable to the Council on Medical Education of the American Medical Association.

The institution should be accredited or otherwise acceptable to the Council on Medical Education. Senior colleges and universities must have the necessary clinical affiliations.

II. CLINICAL AFFILIATIONS

A. The clinical phase of the educational program must be conducted in a clinical setting and under competent clinical direction.

B. In programs where the academic instruction and clinical teaching are not provided in the same institution, accreditation shall be given to the institution responsible for the academic preparation (student selection, curriculum, academic credit, etc.) and the educational administrators shall be responsible for assuring that the activities assigned to students in the clinical setting are, in fact, educational.

C. In the clinical teaching environment, an appropriate ratio of students to physicians shall be maintained.

III. FACILITIES

A. Adequate classrooms, laboratories, and administrative offices should be provided.

B. Appropriate modern equipment and supplies for directed experience should be available in sufficient quantities.

C. A library should be readily accessible and should contain an adequate supply of up-to-date, scientific books, periodicals, and other reference materials related to the curriculum.

IV. FINANCES

A. Financial resources for continued operation of the educational program should be assured for each class of students enrolled.

B. The institution shall not charge excessive student fees.

C. Advertising must be appropriate to an educational institution.

D. The program shall not substitute students for paid personnel to conduct the work of the clinical facility.

V. FACULTY

A. Program Director

1. The program director should meet the requirements specified by the institution providing the didactic portion of the educational program.

2. The program director should be responsible for the organization, administration, periodic review, continued development, and general effectiveness of the program.

B. Medical Director

1. The medical director should provide competent medical direction for the clinical instruction and for clinical relationships with other educational programs. He should have the understanding and support of practicing physicians.
2. The medical director should be a physician experienced in the delivery of the type of health care services for which the student is being trained.
3. The medical director may also be the program director.

C. Change of Director

If the program director or medical director is changed, immediate notification should be sent to the AMA Department of Allied Medical Professions and Services. The curriculum vitae of the new director, giving details of his training, education, and experience, must be submitted.

D. Instructional Staff

1. The faculty must be qualified, through academic preparation and experience, to teach the subjects assigned.
2. The faculty for the clinical portion of the educational program must include physicians who are involved in the provision of patient care services. Because of the unique characteristics of the assistant to the primary care physician, it is necessary that the preponderance of clinical teaching be conducted by practicing physicians.

E. Advisory Committee

An Advisory Committee should be appointed to assist the director in continuing program development and evaluation, in faculty coordination of effective clinical relationships. For maximum effectiveness, an Advisory Committee should include representation of the primary institution involved, the program administration, organized medicine, the practicing physician, and others.

VI. STUDENTS

A. Selection

1. Selection of students should be made by an admissions committee in cooperation with those responsible for the educational program. Admissions data should be on file at all times in the institution responsible for the administration of the program.
2. Selection procedures must include an analysis of previous performance and experience and may seek to accommodate candidates with a health related background and give due credit for the knowledge, skills, and abilities they possess.

B. Health

Applicants shall be required to submit evidence of good health. When students are learning in a clinical setting or a hospital, the hospital or clinical setting should provide them with the protection of the same physical examinations and immunizations as are provided to hospital employees working in the same clinical setting.

C. Number

The number of students enrolled in each class should be commensurate with the most effective learning and teaching practices and should also be consistent with acceptable student-teacher ratios.

D. Counseling

A student guidance and placement service should be available.

E. Student Identification

Students enrolled in the educational program must be clearly identified to distinguish them from physicians, medical students, and students and personnel for other health occupations.

VII. RECORDS

Satisfactory records should be provided for all work accomplished by the student while enrolled in the program. Annual reports of the operation of the program should be prepared and available for review.

A. Student

1. Transcripts of high school and any college credits and other credentials must be on file.
2. Reports of medical examination upon admission and records of any subsequent illness during training should be maintained.
3. Records or class and laboratory participation and academic and clinical achievements of each student should be maintained in accordance with the requirements of the institution.

B. Curriculum

1. A synopsis of the current curriculum should be kept on file.
2. This synopsis should include the rotation of assignments, the outline of the instruction supplied, and lists of multi-media instructional aids used to augment the experience of the student.

C. Activity

1. A satisfactory record system shall be provided for all student performance.
2. Practical and written examinations should be continually evaluated.

VIII. CURRICULUM

A. The length of the educational programs for the assistant to the primary care physician may vary from program to program. The length of time an individual spends in the training program may vary on the basis of the student's background and in consideration of his previous education, experience, knowledge, skills and abilities, and his ability to perform the tasks, functions and duties implied in the "Description of the Occupation."

B. Instruction, tailored to meet the student's needs, should follow a planned outline including:

1. Assignment of appropriate instructional materials.
2. Classroom presentations, discussions, and demonstrations.
3. Supervised practice discussions.

4. Examinations, tests, and quizzes — both practical and written — for the didactic and clinical portions of the educational program.

C. General courses of topics or study, both didactic and clinical, should include the following:

1. The general courses and topics of study must be achievement oriented and provide the graduates with the necessary knowledge, skills, and abilities to accurately and reliably perform tasks, functions, and duties implied in the "Description of the Occupation."

2. Instruction should be sufficiently comprehensive so as to provide the graduate with an understanding of mental and physical disease in both the ambulatory and hospitalized patient. Attention should also be given to preventive medicine and public health and to the social and economic aspects of the systems for delivering health and medical services. Instruction should stress the role of the assistant to the primary care physician relative to the health maintenance and medical care of his supervising physician's patients. Throughout, the student should be encouraged to develop those basic intellectual, ethical, and moral attitudes and principles that are essential for his gaining and maintaining the trust of those with whom he works and the support of the community in which he lives.

3. A "model unit of primary medical care," such as the models used in departments of family practice in medical schools and family practice residencies, should be encouraged so that the medical student, the resident, and the assistant to the primary care physician can jointly share the educational experience in an atmosphere that reflects and encourages the actual practice of primary medical care.

4. The curriculum should be broad enough to provide the assistant to the primary care physician with the technical capabilities, behavioral characteristics, and judgment necessary to perform in a professional capacity all of his assignments, and should take into consideration any proficiency and knowledge obtained elsewhere and demonstrated prior to completion of the program.

IX. ADMINISTRATION

A. An official publication, including a description of the program, should be available. It should include information regarding the organization of the program, a brief description of required courses, names and academic rank of faculty, entrance requirements, tuition and fees, and information concerning hospitals and facilities used for training.

B. The evaluation (including survey team visits) of a program of study must be initiated by the express invitation of the chief administrator of the institution or his officially designated representative.

C. The program may withdraw its request for initial approval at any time (even after evaluation) prior to final action. The AMA Council on Medical Education and the collaborating organizations may withdraw approval whenever:

1. The educational program is not maintained in accordance with the standards outlined above, or

2. There are no students in the program for two consecutive years.

Approval is withdrawn only after advance notice has been given to the director of the program that such action is contemplated, and the reasons therefore, sufficient to permit timely response and use of the established procedure for appeal and review.

D. Evaluation

1. The head of the institution being evaluated is given an opportunity to become acquainted with the factual part of the report prepared by the visiting survey team, and to comment on its accuracy before final action is taken.
2. At the request of the head of the institution, a reevaluation may be made. Adverse decisions may be appealed in writing to the Council on Medical Education of the American Medical Association.

E. Reports

An annual report should be made to the AMA Council on Medical Education and the collaborating organizations. A report form is provided and should be completed, signed by the program director, and returned promptly.

F. Reevaluation

The American Medical Association and collaborating organizations will periodically reevaluate and provide consultation to educational programs.

X. CHANGES IN ESSENTIALS

Proposed changes in the *Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician* will be considered by a standing committee representing the spectrum of approved programs for the assistant to the primary care physician, the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians and the American Society of Internal Medicine. Recommended changes will be submitted to these collaborating organizations and the American Medical Association.

XI. APPLICATIONS AND INQUIRIES

Applications for program approval should be directed to:

Department of Allied Medical
Professions and Services
Division of Medical Education
American Medical Association
535 N. Dearborn Street
Chicago, Illinois 60610

APPENDIX V

EXTENDING THE SCOPE OF NURSING PRACTICE

A Report of the Secretary's Committee to Study Extended Roles for Nurses Department of Health, Education, and Welfare

November, 1971

CONCLUSIONS AND RECOMMENDATIONS

There is much concern about the implementation of expanded roles for the nurses: many nurses, graduates of hospital diploma schools, or of associate degree, or baccalaureate programs, are *not* now prepared to assume this expanded role, and some are reluctant to accept it; many believe that present nursing school curricula do not prepare the nurse to function in an expanded role; rising costs of nursing services and the economic rewards for the nursing profession are of concern to many; and still others believe that there are legal barriers which prohibit nurses from assuming expanded roles.

The Committee considered these concerns at length. In accordance with its charge, the following conclusions and recommendations are aimed at those areas which the Committee believes are significant in achieving extended roles for nurses.

EDUCATION

Conclusion

Much of the training received by health professionals, including nurses and physicians, neither prepares nurses for extended roles in patient care nor equips their co-workers to collaborate effectively with nurses who are or could be trained to function in an extended role. Barriers that inhibit extension of the scope of nursing and result in a reluctance of physicians to delegate significant responsibilities and of nurses to accept them, must be bridged through education and training.

Recommendation

Health education centers should undertake curricular innovations that demonstrate the physician-nurse team concept in the delivery of care in a variety of settings under conditions that provide optimum opportunity for both professions to seek the highest levels of competence. Financial support should be made available for programs of continuing nurse education that could prepare the present pool of over one million active and inactive nurses to function in extended roles. The continuing education of nurses should be structured to encourage professional advancement among and through all nursing education programs and to encourage the use of equivalency examinations to evaluate competence, knowledge, and experience.

LEGAL CONSIDERATIONS

Conclusion

State licensure laws affecting nursing present no perceived obstacles to extending roles for nursing as envisioned in this report. Medical and nursing services are complementary but they are not interchangeable either in authority or accountability. An orderly transfer of responsibilities between medical and nursing has proceeded over many years and there is no reason to assume that questions of law might impede this process.*

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* The Appendix contains a brief discussion of the law pertaining to nursing practice and its implication for extending the role of nursing in patient care.

Recommendation

Increased attention should be paid to the commonality of nursing licensure and certification and to the development and acceptance of a model law of nursing practice suitable for national application through the States. The nursing profession should undertake a thorough study of recertification as a possible means of documenting new or changed skills among practicing nurses.

INTERPROFESSIONAL RELATIONSHIPS BETWEEN PHYSICIANS AND NURSES

Conclusion

An extension of nursing practice will be realized only as physicians and nurses collaborate to achieve this objective. Expanded roles for nurses will require major adjustments in the orientation and practice of both professions. A redefinition of the functional interaction of medicine and nursing is essential; it must be couched in terms of their respective roles in the provision of health services rather than in terms of professional boundaries and rigid lines of responsibility. While the formal educational process will necessarily be a prime vehicle for formulating and inculcating a new definition of the interaction of medicine and nursing, the critical test of any such concept will come in its practical application.

Recommendation

Collaborative efforts involving schools of medicine and nursing should be encouraged to undertake programs to demonstrate effective functional interaction of physicians and nurses in the provision of health services and the extension of those services to the widest possible range of the population. The transfer of functions and responsibilities between physicians and nurses should be sought through an orderly process recognizing the capacity and desire of both professions to participate in additional training activities intended to augment the potential scope of nursing practice. A determined and continuing effort should be made to attain a high degree of flexibility in the interprofessional relationships of physicians and nurses. Jurisdictional concerns per se should not be permitted to interfere with efforts to meet patient needs.

IMPACT ON HEALTH CARE DELIVERY

Conclusion

A fundamental extension of the scope of nursing practice will have a profound impact on the health care delivery system sensitive not only to health providers but to consumers as well. To the extent that nurses are able and encouraged to accept a greater share of responsibility for the provision of health services, they will contribute to a corresponding increase in the ability of physicians and other health professionals to meet the demands upon them. While it is reasonable to assume that nurses who function in extended roles will be able to command more earnings than their more narrowly utilized colleagues, this shift should not represent an inflationary factor since it would reflect increased productivity for the entire health care system.

Recommendation

Cost-benefit analyses and similar economic studies should be undertaken in a variety of geographic and institutional settings to assess the impact on the health care delivery system of extended nursing practice.* Toward the same

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* An Appendix to this paper lists more than 30 locations in which nurses are being prepared for or are practicing in extended roles.

objective, attitudinal surveys of health care providers and consumers should be conducted to assess the significance of factors that might affect the acceptance of nurses in extended care roles which they do not now normally occupy.

EXTENDED ROLES FOR NURSES

To attempt a definitive statement on the nature and scope of extended roles for nurses would go beyond the function of the Committee and, moreover, may not even be possible. Professional nursing, as suggested here and elsewhere, is in a period of rapid and progressive change in response to the growth of biomedical knowledge, changes in patterns of demand for health services, and the evolution of professional relationships among nurses, physicians, and other health professions.

The following pages represent the Committee's attempt to delineate elements of nursing practice in primary, acute, and long-term care and to indicate, for purposes of illustration, those elements for which nurses now generally have primary responsibility, those for which responsibility is exercised by either physicians or nurses or by a member of one of the allied health professions, and those responsibilities that generally fall outside the practice of nurses who are not now utilized or prepared to practice in extended roles as envisioned by the Committee. The groupings in each of these categories are by no means all-inclusive.

. . . IN PRIMARY CARE

One of the most important opportunities for change in the current system of health care involves altering the practice of nurses and physicians so that nurses assume considerably greater responsibility for delivering primary health care services. The term Primary Care as used in this paper has two dimensions: (a) a person's first contact in any given episode of illness with the health care system that leads to a decision of what must be done to help resolve his problem; and (b) the responsibility for the continuum of care, i.e., maintenance of health, evaluation and management of symptoms, and appropriate referrals.

In present practice the utilization of nurses varies extensively. Some are responsible for institutional areas of management and communication, such as inventory and supply, making requisitions for laboratory and other diagnostic and treatment services, routine charting and managing the flow of charts, and making appointments. A study reported by Yankauer, Connelly, and Feldman (*Pediatrics* 45: No. 3, Part II, March 1970) reveals that in pediatric practices nurses engage primarily in technical and clerical tasks along with such patient care activities as giving minor medical advice and information and interpreting instructions.

In contrast, nurses in public health agencies have traditionally functioned relatively independently, but with physician collaboration, in patients' homes, in remote, isolated rural and ghetto areas, and more recently in clinics, hospitals, and community care centers where they have: assessed problems of individuals and families; treated minor illnesses; referred patients for differential medical diagnosis; arranged for referrals to social service agencies and organizations; given advice and counsel to promote health and prevent illness; supervised health regimens of normal pregnant women and of children; and worked with health-related community action programs. Such functions, however, have not been institutionalized by common agreement of nurses and physicians or by medical and nursing educators.

As health care becomes increasingly valued in our society, nurses will be expected to take more responsibility for the delivery of primary health and nursing care, for coordinating preventive services, for initiating or

participating in diagnostic screening, and for referring patients who require differential medical diagnoses and medical therapies.

Primary Care Functions for Which Many Nurses are Now Generally Responsible

— Case finding and medical referral. These activities usually are carried out by nurses who function in patients' homes, in community clinics, in schools, and in industrial settings. Identification of ills, actual and impending, is expected of all nurses.

— Case finding and social agency referral. Generally this function is carried out in patients' homes, in community clinics, in schools, and in industry, although hospital nurses increasingly assess social and economic circumstances of patients and seek to prevent problems and complications that are related to social and economic factors.

Primary Care Functions for Which Nurses and Physicians Share Responsibility

— Health surveillance of pregnant and postpartum women, well babies and children, patients discharged from therapeutic regimens, homebound invalids, and persons in rest and nursing homes.

— Identification of the need for, and assisting in the planning and implementation of, changes in living arrangements affecting the health of individuals.

— Evaluation of deviations from "normal" in patients who present themselves for treatment.

— Assessment of the responses of patients to illness and of their compliance with and response to prescribed treatment.

— Performance of selected diagnostic and therapeutic procedures, e.g., laboratory tests, wound care.

— Prescription of modifications needed by patients coping with illness or maintaining health, such as in diet, exercise, relief from pain, and adaptation to handicaps or impairments.

— Making referrals to appropriate agencies.

Primary Care Functions for Which Many Nurses are Now Prepared and Others Could Be Prepared

— Routine assessment of the health status of individuals and families.

— Institution of care during normal pregnancies and normal deliveries, provision of family planning services, and supervision of health care of normal children.

— Management of care for selected patients within protocols mutually agreed upon by nursing and medical personnel, including prescribing and providing care and making referrals as appropriate.

— Screening patients having problems requiring differential medical diagnosis and medical therapy. The recommendation resulting from such screening activities is based on data gathered and evaluated *jointly* by physicians and nurses.

— Consultation and collaboration with physicians, other health professionals, and the public in planning and instituting health care programs.

Assumption of these responsibilities requires that nurses so engaged have knowledge and requisite skills for:

— eliciting and recording a health history;

— making physical and psychosocial assessments, recognizing the range of "normal" and the manifestations of common abnormalities;

— assessing family relationships and home, school, and work environments;

— interpreting selected laboratory findings;

— making diagnoses, choosing, initiating, and modifying selected

— assessing community resources and needs for health care;

— providing emergency treatment as appropriate, such as in cardiac arrest, shock, or hemorrhage; and

— providing appropriate information to the patient and his family about a diagnosis or plan of therapy.

. . . IN ACUTE CARE

The role of the nurse in acute care is in many ways more clearly defined than it is in other areas of health care. Acute care consists of those services that treat the acute phase of illness or disability and has as its purpose the restoration of normal life processes and functions. The nurse's role in acute care has, by tradition, been somewhat restrictive in many clinical settings, perhaps by virtue of the fact that the physician is recognized as the chief health care practitioner in these settings. It should be anticipated that nurses, and head nurses in particular, will become increasingly free of managerial functions. This will provide opportunity for nurses to assume added responsibility for the clinical management of patients.

Acute Care Functions for Which Nurses are Now Generally Responsible

— Recognizing "cue complexes" or syndromes — such as pulmonary embolism, acute renal failure, insulin shock, and hemorrhage — and the making of clinical inferences.

— Provision of emergency treatment as appropriate, e.g., in cardiac arrest, shock, hemorrhage, convulsions, and poisoning.

— Provision of appropriate information to the patient and his family about diagnosis or plan of therapy following physician-nurse appraisal.

Acute Care Functions for Which Nurses and Physicians Share Responsibility

Such responsibilities are now being shared in some settings on the basis of mutually agreed upon protocols by physicians and nurses:

— carrying out selected diagnostic and therapeutic procedures and interpreting information such as biochemical reports.

— translating research findings into practice, e.g., previous research conclusions concerning the causes of postcardiotomy delirium can be used to minimize sensory monotony and sleep deprivation in intensive care units.

Acute Care Functions for Which Many Nurses are Now Prepared and Others Could Be Prepared

— Securing and recording a health and developmental history and making a critical evaluation of such records as an adjunct to planning and carrying out a health care regimen in collaboration with medical and other health professionals.

— Performing basic physical and psychosocial assessments and translating the findings into appropriate nursing actions.

— Discriminating between normal and abnormal findings on physical and psychosocial assessments and reporting findings when appropriate.

— Making prospective decisions about treatment in collaboration with physicians, e.g., prescribing symptomatic treatment for coryza, pain, headache, nausea, etc.

— Initiating actions within a protocol developed by medical and nursing personnel, such as making adjustments in medication, ordering and interpreting certain laboratory tests, and prescribing certain rehabilitative and restorative measures. Two examples of these actions are: (1) a coronary care nurse recognizes sinoatrial arrest or block, discontinues the maintenance dose of digitalis according to standing orders, notifies the physician, and prepares to assist with such measures as transvenous pacing or Isoproterenol drug therapy, and (2) a nurse administers postural drainage, clapping, and vibrating as a part of the treatment cycle for patients with chronic pulmonary problems caused by bronchiectasis, emphysema, or fibrocystic disease.

IN LONG-TERM CARE

The increasing numbers of people affected by long-term illness make it imperative to reshape and extend the roles of physicians and nurses in providing for their care. Nurses involved in long-term care often function at less than the level for which they are prepared and less effectively than society has a right to expect. As nurses assume broadened responsibility for continuing care of the chronically ill in all age groups, we can expect positive changes in this increasingly important area of health care.

Long-term care consists of those services designed to provide symptomatic treatment, maintenance, and rehabilitative services for patients of all age groups in a variety of health care settings. Provision of this care should be the result of mutual agreement between medical and nursing staffs, and should be based upon the needs and resources of the patient and the readiness of the family to participate in the plan of care.

Many experimental efforts relating to extended roles of the nurse are now in progress. It is likely that all of the activities described below are not being practiced in a few settings. Their relative rarity, however, warrants pointing to them as areas in which nurses discharge or could be prepared to assume further responsibility.

The nurse's responsibility in long-term care varies greatly according to the practice setting, the viewpoints of both physicians and nurses, the educational preparation of the nurse, and the extent of her competence and experience.

Long-Term Care Functions for Which Nurses are Now Generally Responsible

— Giving treatments, rehabilitative exercises, and medications as prescribed by the physician.

— Teaching the patient, members of his family, or both to give treatments or medications when indicated.

— Teaching patients and family members to carry out the medical plan for special diet, taking into consideration cultural background, personal preferences, and financial status.

— Observing and evaluating patients' physical and emotional condition and reaction to drugs or treatments.

— Calling new signs or symptoms to the attention of the physician and

arranging for medical attention when the patient's condition appears to warrant it.

— Recommending appropriate measures regarding physical and social factors in the environment that affect patient care.

— Instituting immediate life-saving measures in the absence of a physician.

— Assisting the patient and family to identify resources which will be helpful in maintaining him in the best possible state of health.

Long-Term Functions for Which Nurses and Physicians Share Responsibility

— Making necessary changes in a treatment plan in light of changes of the patient's physical or emotional tolerance and in accordance with an established treatment plan.

— Giving families information and encouragement which may help them to adopt attitudes and practices that promote health and reduce anxiety, tension, and fatigue.

— Providing continuous health guidance for mentally ill patients and their families until all practicable rehabilitation of patient and family has been achieved with a joint decision of therapists involved.

— Making appropriate referral for continuity of care.

Long-Term Care Functions for Which Many Nurses are Now Prepared and Others Could Be Prepared

— Assessing physical status of patients at a more sophisticated level than is now common in nursing practice.

— Securing and maintaining a health history.

— Within protocols mutually agreed upon by medical and nursing staff — make adjustments in medications; initiate requests for certain laboratory tests and interpret them; make judgments about the use of accepted pharmaceutical agents as standard treatments in diagnosed conditions; assume primary responsibility for determining possible alternative for care settings (institution or home) and for initiating referral.

— Conducting nurse clinics for continuing care of selected patients.

— Conducting community clinics for case findings and screening for health problems.

— Assessing community needs in long-term care and participating in the development of resources to meet them.

— Assuming continuing responsibility for acquainting selected patients and families with implications of health status, treatment, and prognosis.

— Assuming responsibility for the environment of the care setting as it affects the quality and effectiveness of care.

APPENDIX VI

THE ADULT NURSE PRACTITIONER TRAINING PROGRAM

Department of Internal Medicine
University of Virginia School of Medicine
Charlottesville, Virginia

Statement of Robert A. Reid, M.D., Director, Oct 10, 1972

The adult nurse practitioner training program at the University of Virginia started in 1969. At that time, Dr. James Respess, a professor in Internal Medicine, recognized that it would be necessary for people other than physicians to participate in the primary delivery of health care. He began in that year to systematically train the first of a series of experienced nurses in the skills of history-taking, physical examination, and diagnosis.

In 1971 Dr. Regina McCormack headed a group of physicians who gave the first formal course of instruction to six nurses. Dr. McCormack has since entered private practice, but the principle of the nurse participating in adult care is well-established at the University. I have now been hired as director of the program and a second class of six girls is in training. An application has been submitted to the Regional Medical Program to support broadening the program focus on adult and ambulatory care. A family nurse practitioner program would include training in the full spectrum of problems seen by the family physician.

Specific goals, findings and plans of our project are listed below:

1. GOAL: TO DEMONSTRATE THAT NURSES ARE INTERESTED IN BECOMING NURSE PRACTITIONERS

   Findings: Our program has not been widely publicized, but we have many inquiries about it. There is without doubt wide interest in the concept of the adult nurse practitioner. It is important to note that our most talented applicants have consistently been girls who come to our program because we do not require a BS in nursing. These girls are mature, experienced nurses and are highly motivated, but have no other avenue open to them which could enable them to increase their skills and responsibilities within a short period of time which they can afford.

   Conclusion, plans: We feel that it is essential to continue to make the course available to non-degree candidates. It must also be kept as short as possible without sacrificing quality of training.

2. GOAL: TRAINING NURSE PRACTITIONERS FOR PHYSICIANS IN THE STATE WHO ARE INTERESTED IN EMPLOYING THEM

   Findings to date: There is not an overwhelming demand for adult nurse-practitioners within the state. An important prerequisite for application this year has been that the candidate must have a job waiting for her following completion of the course. Graduates this year have been sponsored by or will be hired by physicians in Charlottesville, Lynchburg, Waynesboro, and Norfolk.

   Conclusions, plans: We feel that the prerequisite for sponsorship is wise and will continue it for the present. Trainees who are not immediately employed as nurse-practitioners have some loss of their new skills if they are not allowed to use them immediately after graduation.

3. GOAL: DEMONSTRATING THE EFFECTIVENESS OF THE ADULT NURSE PRACTITIONER IN AMBULATORY CARE

Findings to date: The pediatric nurse practitioner is recognized as a valuable member of the health care team. The experience in pediatrics is not necessarily applicable to adult medicine, however. The pediatric nurse practitioner is employed primarily in well-patient care and in care for minor problems.

Our philosophy is that adult nurse practitioners also have a valuable role to play in well-patient care and in triage. However, her most valuable function is the independent management of chronic disease in the adult. Once a physician has established a diagnosis, she must be capable of seeing the patient over an extended period of time between physician visits. She must be expert in observation of disease, alert to potential complications in complex situations, and intimately acquainted with the side effects of a number of potent drugs. Her nursing skills are invaluable to her in this situation and we do not believe that paramedics without a nursing background can be trained easily for this role.

Conclusions, plans: A demonstration project has been set up within the medical clinic of the University of Virginia to demonstrate the effectiveness of nurse-practitioners in caring for chronic disease. The practice of the nurses is compared to that of physicians in terms of efficiency, patient time, patient satisfaction, cost, as well as effectiveness.

4. GOAL: TAILORING OUR PROGRAM TO THE NEEDS AND INTERESTS OF THE PHYSICIANS IN THE STATE

Findings: We have an ongoing program to monitor job interviews of our graduates. Major concerns about the concept of the adult nurse practitioners are as follows:

1. Concern for the legal issues
2. Concern that a nurse practitioner cannot pay her own way in practice, but would be a financial burden on the physician —
3. Observation that many graduates feel that they would like more practical experience in the University environment before going out to apply for jobs.

Conclusions, plans:

1. We have taken an active interest in the legal status of the nurse practitioner. We feel that there is nothing restrictive in the tradition of nursing practice, and that certification as nurse practitioners should be from *within* the structure of the nursing profession. Laws should be passed to protect the nurse practitioner and her associated physician against malpractice liability and to permit her to prescribe medications.
2. A demonstration of the financial aspect of nurse practice is under way as described above.
3. We believe that it would be optimal to offer a six month post-graduate practical experience to graduates as an option. Since they would be functioning as nurse-practitioners, they should be paid during this period. This "internship" is included in

our recent grant application and should be considered for funding by the state legislature.

We have greatly increased the amount of practical experience in our program and feel that nurse-practitioners, like physicians, should be trained by people who are actively engaged in patient care. We are working toward a primary care clinic within the hospital which could be in part staffed with nursing school faculty who would eventually teach the course.

5. GOAL: DEVELOPING TECHNICAL METHODS OF AMBULATORY CARE WHICH WILL SUPPORT THE NURSE PRACTITIONER IN HER ROLE

Findings: The adult nurse practitioner is a member of a health team who carries major responsibilities and must communicate effectively with those with whom she works. For this reason, we have been working on methods of communication: applications of the problem-oriented record which are specially suited to her use, applications of computerized medical records which could enable her to communicate with a sponsoring physician though practicing in a remote location, and applications of peer review techniques which would enable a physician or her peers to evaluate the problems of her practice.

Conclusions, plans: The importance of this work cannot be underestimated. There is no question that our practicing nurses have been able to deliver the most effective care where these techniques have been most highly developed within the University. The problems of communication, education, and quality care in nursing practice are virtually the same as those in medical practice.

6. GOAL: ENABLING GRADUATES OF THE PROGRAM TO RECEIVE ACADEMIC CREDIT FOR THEIR STUDY

Findings: The nurse practitioners now trained at the University of Virginia receive a certificate of training. There is no academic credit received.

Conclusions, plans: There is a concensus within the Department of Internal Medicine that this program belongs within the nursing school. However, a number of difficulties would have to be worked out. There is no clinical facility under the nursing school and no practicing nurse practitioners on its faculty. Without these two prerequisites, our program could not be transferred with its present practical emphasis.

APPENDIX VII

VIRGINIA STATE HEALTH DEPARTMENT

JOB CLASSIFICATION

Family Nurse Practitioner A

Distinguishing Features of the Work

Provides primary medical care to individuals and families in health centers, clinics or in the home in areas where a physician or physicians are in residence, but in such short supply that they cannot meet the medical needs of the citizens of the area.

The work involves performing a number of health care functions, under the supervision of a physician, for which special training is required beyond the normal skill and competence of a nurse. Responsibility is assigned for seeing clinic patients on a regular basis in a public health facility for the purpose of treating a variety of general illnesses as well as those of a special nature such as prenatal and post-partum care and family planning assistance. Under normal conditions, the clinic patients receive an examination by a physician on their initial visit. On return visits, those assigned to the nurse practitioner receive their examination and treatment from that individual, with referral made back to the physician only when conditions become markedly worse or other complications arise. Duties include taking complete medical histories, conducting physical examinations, ordering diagnostic tests and studies, treating conditions from standing orders of physicians and taking such action in acute and emergency situations as the conditions warrant and the training and skill of the nurse practitioner allow. Patients with potentially severe chronic illnesses which are in a relatively stable phase are referred by physicians for follow-up supervision and care. At this level of work, a physician is ordinarily on or near the premises where the treatment is taking place, with the nurse practitioner serving in the role of a colleague or associate in handling the total patient load. When working in a clinic setting, supervision is exercised over the supporting clinic staff. Home visits are made at the direction of the physician or as emergencies dictate. Liaison is maintained with the Public Health Nurse Director.

Examples of duties characteristic of positions in this class:

1. Treats uncomplicated illnesses such as upper respiratory disorders, ear infections, skin eruptions and common infectious diseases of childhood; differentiates between conditions requiring or not requiring a physician's expertise, with referral of the former to appropriate care.

2. Manages prenatal and post-partum care after initial examination by physician; determines pelvic measurements, fetal size and position, fetal heart sounds, maternal weight gain, blood pressure, urine analysis and other laboratory tests; instructs and counsels patients.

3. Coordinates family planning activities; works with couples, in consultation with the family physician; performs physical examinations, including Pap smears; prepares the patient for the chosen method of contraception; provides guidance, support and appropriate follow-up.

4. Manages the care of well children, including evaluation of physical and psychosocial development using a standard accepted format

such as the Denver Development Test; initiates immunizations; advises the mother on growth, development and dietary schedules; recognizes and refers to physicians physical abnormalities and deviations from the normal.

5. May be responsible for the health supervision of patients with chronic illnesses which are not in severe stages; recognizes complications or exacerbations which require consultation with or referral to physicians, examples of the diagnostic classifications managed include: hypertensive cardiovascular disease, arteriosclerotic heart disease, arthritis, exogenous obesity, psycho-physiologic reactions, diabetes mellitus and chronic upper respiratory disease.

6. Normally obtains assistance from a physician in acute and emergency situations, when the physician is not immediately available, takes appropriate action as indicated by the situation; takes medical histories, conducts physical examinations and initiates such diagnostic tests as seem appropriate.

Qualification Standards

Registration or eligibility for registration in Virginia as a practicing professional nurse; successful completion of an organized training program for family nurse practitioners at an approved school; at least three years of public health or equivalent nursing experience.

Basic knowledge of procedures necessary to provide primary health care; considerable knowledge of public health nursing practice; knowledge of economic and social conditions relating to health care; ability to communicate effectively; ability to obtain understanding and active support of physicians, public health nursing personnel, civic groups and the general public; intelligent, stable, mature, innovative and possessed with a real interest in people.

APPENDIX VII (b)

VIRGINIA STATE HEALTH DEPARTMENT

JOB CLASSIFICATION

Family Nurse Practitioner B

Distinguishing Features of the Work

Provides primary medical care to individuals and families in a community where there is no physician in residence.

The work involves treating and managing the basic medical care of patients in a remote area of the State where a physician is available only by telephone or by travel from some distance away. Specialized training to the master's level is applied both in the diagnosis and treatment of illness and injury and in the recognition of patients' conditions which require a more advanced level of assistance. The public health physician who is responsible for the broader geographical area encompassing the locality to which the nurse practitioner is assigned prepares standing orders regarding the handling of various types of situations. These include the recognition and treatment of less complicated conditions, the supervision of obstetrical cases, the providing of family planning services and the follow-up care of patients who have been treated by physicians for additional guidance or arranges for the transportation of patients to a medical facility when it is deemed necessary and appropriate. Responsibility is also assigned for participating in programs of preventive medicine in the assigned area, for providing supportive health counseling to family groups and for participating in staff development activities. Close contacts are established with other public health personnel who may work in the area, and liaison is maintained with the Public Health Nurse Director

Examples of duties characteristic of positions in this class:

1. Under orders, treats uncomplicated illness such as upper respiratory diseases, ear infections, skin eruptions and common infectious diseases of childhood; determines when illnesses become so severe that additional instruction must be obtained from a physician or arrangements made to get the patient to a location where more advanced medical care is available.

2. Assumes responsibility for prenatal and post-partum care after initial examination by a physician; conducts usual examinations and tests during course of pregnancy; ensures that proper arrangements are made for delivery.

3. Supervises family planning activities; consults with family physician when necessary; examines patients, discusses various devices and methods and gives follow-up assistance.

4. Responsible for the health supervision of patients with chronic illnesses who have been treated by a physician and referred for follow-up; recognizes complication or exacerbations which require consultation with or referral to the physician.

5. In acute and emergency situations, takes appropriate action as dictated by the situation; takes histories, conducts examinations and initiates and interprets such diagnostic tests as seem appropriate.

6. Becomes involved in a variety of public health preventive medicine

activities, including surveys and studies of health-related situations and training exercises.

Qualification Standards

Registration or eligibility for registration in Virginia as a practicing professional nurse; possession of a bachelor's degree from a school accredited by the National League for Nursing; successful completion of a master's degree course of studies preparing for work as a family nurse practitioner from an approved school; at least three years of public health of equivalent nursing experience.

Considerable knowledge of procedures necessary to provide primary health care; considerable knowledge of public health nursing practice, knowledge of economic and social conditions relating to health care; knowledge of methods of health teaching; ability to communicate effectively; ability to obtain understanding and active support of physicians, public health nurse personnel, civic groups and the general public; intelligent, stable, mature, innovative, and possessed with a real interest in people.

APPENDIX VIII

VIRGINIA STATE BOARD OF NURSING

Statement of Belief and Proposal Providing for the Extension of Nursing Practice in Virginia

The Board of Nursing recognizes that the demands for health care are exceeding the rate at which a sufficient number of qualified professional and allied health services personnel can be prepared. The Board shares, with other health professionals and consumers of health services, the concern for and interest in providing effective and efficient health services for the people of the Commonwealth.

The Board of Nursing believes that health manpower shortages and problems relating to the distribution of health manpower cannot be resolved solely by the development and licensing of unlimited categories of health services personnel.

The Board of Nursing supports the American Nurses' Association, the American Medical Association, and the American Hospital Association in their call for a moratorium on the licensure of new categories of health occupations until alternatives are explored and the need for such licensure is determined.

The Board of Nursing supports the view that "No overall effective strategy for the production and use of manpower can be implemented until present legal restrictions on allocation of tasks are identified and resolved." [1]

The Board believes that the term "nurse practitioner" applies to all nurses duly licensed under the Code of Virginia and that the regulation of nurse practitioners should continue to be the duty of a board of nursing.

The Board believes that the extension of the scope of practice of registered nurses and licensed practical nurses should continue as it has in the past; that is, nursing practice should continue to change and expand as technology and the patterns of health care demand. Appropriate educational preparation is inherent in this belief.

The Board of Nursing believes that the interests of the public welfare and safety would be best served if nurses would plan and work jointly with physicians toward a solution that would deal effectively and expeditiously with required changes in practice.

To accomplish this purpose, the Board of Nursing suggests the following measures:

1. Amend the nurse practice act so that the scope of practice of the two categories of nurse practitioners may be defined and redefined by Board regulation. The phraseology of such an amendment might be: 54-367.2, DEFINITIONS. When used in this chapter except in those instances where the context clearly indicates a different meaning:

   (a) "Board" means the Virginia State Board of Nursing.

   (b) "Professional nursing" means the performance for compensation of any act in the observation, care and counsel

[1] Forgotson, E. H., M.D., L.L.M.; Roemer, R., L.L. B.: Government Licensure and Voluntary Standards for Health Personnel and Facilities Medical Care, 1968: Volume VI, No. 5, 349-350.

of persons who are ill, injured, or experiencing changes in normal health processes or the maintenance of health or prevention of illness of others; or in the supervision and teaching of others who are or will be involved in nursing care; or the administration of medications and treatments as prescribed by a licensed medical practitioner. Professional nursing requires specialized education, judgment, and skill and is based upon knowledge and application of principles from the biological, social, and physical sciences.

Nothing in this article shall prohibit services rendered by a registered nurse or a licensed practical nurse provided such services are authorized by rules and regulations jointly promulgated by the Virginia Board of Medical Examiners and the Virginia Board of Nursing which shall be implemented by the Virginia Board of Nursing.

2. That the medical practice act be amended in such a way as to broaden the delegatory powers of physicians.

   The wording of such an amendment might be, "Nothing in this article shall prohibit services rendered by a registered nurse or a licensed practical nurse, if such service is rendered under the supervision of a licensed physician and is authorized by rules and regulations jointly promulgated by the Virginia Board of Medical Examiners and the Virginia Board of Nursing."

Amendments such as these would make both practice acts explicit, make them more responsive to changes in practice and provide direction for educational programs preparing the practitioners of medicine and nursing. The suggested amendments make no reference to physicians trained assistants because the Board of Nursing believes that the term "physician assistant" should not be applied to any of the nurse practitioners being prepared to function in an extension of the nursing role.

Adopted April, 1972

APPENDIX IX

ACTIVE DENTAL HYGIENISTS BY PLANNING DISTRICT

Fractions represent dental hygienists who work for dentists in two planning districts.

APPENDIX X

RULES AND REGULATIONS GOVERNING THE PRACTICE OF DENTISTRY AND DENTAL HYGIENE

Regulation 2. Pursuant to 54-147(1) a licensed dentist may delegate to the following categories of persons who have formal or informal training sufficient to establish their competency and under the direct supervision and responsibility of the dentist the following acts:

DENTAL ASSISTANTS

1. Application of topical medicinal agents and sealants.
2. Instruct patients to dietary principles.
3. Place and expose X-ray film.
4. Record a patient's pulse, blood pressure, temperature, and medical history.
5. Serve as a chairside assistant.
6. Placement and removal of matrixes for restorations.
7. Remove ligature ties.
8. Placement and removal of rubber dam.
9. Removal of cement from restorations and bands.
10. Removal of sutures.
11. Removal of temporary crowns and fillings.
12. Removal of socket dressings.
13. Placement and removal of periodontal packs.
14. Taking a dental plaque smear.
15. Application of topical anesthesia (aerosol topical anesthesia excluded).
16. Polish natural and restored teeth.
17. Removal of ligature wires on orthodontic applicances.
18. Holding impression material after placement in the patient's mouth by the dentist.
19. Instructions in oral hygiene techniques.
20. Selecting and prefitting of orthodontic bands for cementation by the dentist.
21. Placement of amalgam in prepared cavities with the carrier to be condensed by the dentist.