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ABSTRACT

This guide discusses some of the principles upon which sound planning for nursing education is based, and suggests procedures that may be helpful to those responsible for such planning. Particular reference has been made to countries where nursing education is developing and where international nursing advisers are assisting local nurses in their planning for the future. One major recommendation is made for administrators of nursing school programs in the planning of such programs: the plan must be made to fit the local situation and all who will have a part in carrying out the plan should have a share in making it. (Author/HS)

*PUBLIC HEALTH PAPERS* 7

# BASIC NURSING EDUCATION PROGRAMMES

## A Guide to their Planning

KATHARINE LYMAN





*WORLD HEALTH ORGANIZATION*
*GENEVA*

PUBLIC Health Papers *is a medium for the publication of occasional papers that have usually been prepared as contributions to the study by the World Health Organization of a particular health question, and that have been considered to be of interest to a wider circle of readers than those for whom they were originally written.*

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KATHARINE LYMAN

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WORLD HEALTH ORGANIZATION

GENEVA

1961

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# PREFACE

*All the countries of the world share the problem of shortage of qualified personnel to give nursing services essential to the promotion of health and the care of the sick. The demand for qualified nurses is expanding even faster than the numbers are increasing. Furthermore, new nursing responsibilities are appearing, and the character of nursing is gaining new breadth and depth, requiring change in the content and methods of nursing education and an increase in educational facilities. Many countries are feeling the need to reassess and expand existing programmes and to add new ones; many are creating nursing education programmes and facilities for the first time.*

*This study has been prepared in answer to requests for guidance in organizing or reorganizing programmes for the basic education of nurses.*[1] *It has been developed through a study of the needs of nursing leaders in many parts of the world and has made use of their experiences. It offers suggestions as to a method of planning, and is intended for the use of nurses who find themselves in a position to influence planning for basic nursing education at local, intermediate (state or provincial), or national levels, particularly in countries where the practice of modern nursing and preparation for it are just beginning to develop. Directions for action which would apply in all details to any one situation could not be developed, but suggestions for action can be offered. This guide is not, therefore, a pattern to be followed exactly, but comprises ideas and methods which have been tried and found useful under a wide variety of circumstances. It is suggested that the guide be used in conjunction with the writings of recognized authorities on the principles and methods*

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[1] The term "basic nursing education" is used in this publication in the sense in which it was employed in a report of a WHO Expert Committee on Nursing, *Wld Hlth Org. techn. Rep. Ser.*, 1950, 24, p. 11. In a section describing three main types of nursing personnel, the nurses prepared by the programme of basic nursing education are described as follows:

"Nurses for junior positions (first level or staff nurse position) in hospitals, general and special; for clinics; in some countries for the private practice of nursing; and, in some instances (increasingly so), for junior positions in public health nursing programmes and industrial plants."

*of nursing education as well as with publications of the International Council of Nurses, and the World Health Organization.* [1-5].

*A group of nurses with international experience met in Tokyo in March 1957 to review the first draft of the Guide, which was written by Eleanor Bowen. Participants in the conference were:*

Elizabeth Brackett, Nursing Consultant, International Co-operation Administration Mission to China (Taiwan)

Tch-Chen Hsia, Director of School of Nursing and Midwifery, Taiwan

Mitsu Kaneko, Counsellor on Nursing, Medical Affairs Bureau, Ministry of Health and Welfare, Japan

Aya Maeda, Vice-Director, St Luke's College of Nursing, Tokyo

Kikue Okada, Chief of Department of Nursing, Institute of Public Health, Tokyo

Eleanor Bowen, Nursing Education Consultant, WHO

Margaret Chalmers, Nurse Educator, WHO, Singapore

Elizabeth Hill, Nursing Officer, WHO, Geneva

Katharine Lyman, Nurse Educator, WHO, Japan

Alice Reid, Nursing Adviser, WHO Regional Office for Western Pacific, Manila

Lily Turnbull, Nursing Adviser, WHO Regional Office for Western Pacific, Manila

*Subsequently the material was reviewed by members of the Tokyo Conference, by members of the Expert Advisory Panel on Nursing, and by WHO staff members in various parts of the world. A second draft was completed by Elizabeth Hilborn in December 1958 and distributed for review in a variety of situations in many countries. Suggestions as to uses for the guide, its content, and its form were contributed by readers in the different countries and used in the preparation of the final document.*

*Because any plan for the education of nurses must be based on local resources and needs, and must be adapted to the community in which they will serve, fact-finding needs to be preliminary to planning. Accordingly the Guide has been prepared in two parts; the first outlines the kinds of general and specific information about a community and an individual school upon which planning for nursing education is based,*

[1] International Council of Nurses, Committee on Education (1952) *The basic education of the professional nurse* (reprint), London

[2] International Council of Nurses (1958) *Basic nursing education*, London

[3] Goddard, H. A. (1958) *Principles of administration applied to nursing service*, Geneva (*World Health Organization: Monograph Series*, No. 41).

[4] Arnstein, M. (1953) *Guide for national studies of nursing resources*, Geneva

[5] World Health Organization, Expert Committee on Midwifery Training (1955) *Report* (*Wld Hlth Org. techn. Rep. Ser.*, 93)

*and suggests methods for collecting this information; while the second suggests steps for developing a nursing education programme. Since planning for an individual programme is conditioned by the country-wide organization of nursing education, emphasis is given first to country-wide planning, which is then followed by suggestions as to planning for an individual school.*

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# FACT-FINDING: THE STUDY OF A COMMUNITY

In the early days of its development, the practice of nursing grew out of the specific needs of the people in any given community. It reflected the cultural, social, and economic patterns of the community. It was a service of expediency and had the advantage of being closely identified with the people it served. As nurses sought to improve their service, patterns of nursing education evolved which at first were closely adjusted to cultural, social and economic factors.

As is the way with patterns, however, these educational systems tended to become fixed and persisted in spite of rapid educational change in other fields. Only in recent decades have nurses in countries with such patterns begun to re-examine their usefulness for meeting current and future needs. Too often also these patterns and related standards have been transferred to other and different communities with insufficient thought as to their suitability for the different situations.

Whether replanning or planning for new programmes, it is important to take as a basis knowledge about, and understanding of, the community to be served, and to provide at the outset for continuing study of how to meet its changing needs. Its people, its culture, its resources, and its health needs must all be considered and understood if planning is to be sound.

This section of the Guide will outline the kinds of information about a community needed for planning a nursing education programme. The information is pertinent whether a general programme for a country or a programme for a particular school is under consideration. The outline will offer illustrative questions under each heading which will call attention to some of the implications for nursing, and will hopefully suggest additional avenues of inquiry.

Three main topics are proposed:

(1) general information relating to geography, climate, population, culture, government, economy, education;

(2) health needs and services: nursing;

(3) existing schools of nursing.

It is desirable that much of the information relating to these topics be at hand before any decisions as to programme are made. Time must be set aside for initial study and analysis before plans are started. Certain information can be collected promptly. Some necessary information may be unavailable, and the planners may be obliged to rely on opinions and impressions until search for the facts is possible or advisable. Continuing study to supplement and amend initial findings is, of course, essential—governments, policies, plans and attitudes change; new facilities are developed; as plans give way to action, new meaning is attached to original data and new facts alter evaluations of information gained earlier.

The methods of obtaining this information will vary in different countries. In some situations it may be possible to organize a study committee. Representatives might be selected from nursing services, nursing education, the social sciences, the medical and teaching professions, government (education and health service administrations) and the public. In collecting and analysing data, such a group would learn a considerable amount about nursing education as well as about the community, and might well provide members for an active planning and advisory committee for the programme which ultimately develops. In other situations, such an organized study group may not be possible, and it will be necessary to share the effort in a more informal way. For instance, one person starting alone would seek help of others chosen because of their functions and their interests; from these contacts a number of interested people might find themselves working together in the collection of information.

Information may be found in available written materials, through consultation, and by observation. Written materials will include annual reports of government departments responsible for health and welfare, for education, labour, industry, and agriculture: and special surveys sponsored by these departments, and by organizations and individuals outside the government. Of particular interest will be reports of surveys on health, social welfare, nursing and nursing education, undertaken by special commissions or by consultants brought into the country for the purpose. The way in which these reports have been used, the extent to which they have been applied, and the results of their use should be studied. An early review of this material will help in planning how to get necessary additional information either through interview or by observation. Care should be used to seek information from persons representative of a wide

variety of viewpoints; the man in the street as well as the one in government office, the non-professional as well as the professional, the mother as well as the teacher, and those in remote areas and small villages as well as in the large towns and the capital city. The study committee and the persons interviewed will be a valuable source of advice as to further channels of inquiry, and as to useful observations of health agencies, schools, etc.

## GENERAL INFORMATION

The newcomer to a community in his own or in another country learns much from his contact with individuals. It may be his good fortune to be in contact with a person or small group so versed in significant knowledge and so perceptive of the newcomer's needs and ignorances as to be invaluable in helping him to feel at home in the culture and aware of its forces. At the same time, he needs to make his own plans for studying the community. The following topics and related questions are offered to help him in making his plans.

### *Geography, topography, and climate*

(1) How do these affect homogeneity of population, communications, livelihood, nutrition, etc.?

### *Population*

(1) What is the distribution by age and by race?

(2) What is the distribution by place of dwelling: urban, rural? What is the implication as to the preparation of nurses for work in inaccessible areas?

### *Cultural patterns*

(1) Family structure: roles of family members, expanded family? Expectations for young men, young women? Dominance of the father? the mother?

(2) Are young men expected to follow family occupation? Would customs favour their studying nursing?

(3) Can young women leave home to get an education? To live independently? To support themselves? Can young women mix

with men as students? As professional or vocational workers? What kind of "protection" would need to be considered for girls living away from home?

(4) What changes in the attitude toward women have taken place in the recent past, or are in process?

(5) What are the prevailing hygienic practices and facilities in the homes of the people, and particularly in the homes from which students will be recruited? Information as to housing, sanitation, clothing, eating habits, is pertinent.

(6) What are the accepted living standards and conditions for students in boarding-schools?

(7) What dietary provisions are necessary for students of differing race, religion, etc.?

(8) How much understanding do the members of one social or cultural level or segment have of the customs and beliefs of other levels or segments of society? For instance, do the professional people in the cities have understanding of and tolerance for the beliefs of remote rural people regarding women, or nursing, or health practices? Do the people of one geographic area differ in customs and beliefs from people in another? Will students from both such areas be brought into contact?

(9) What customs regarding hospitalization affect nursing care? For instance, do people expect to be with members of the family who are hospitalized? Does this imply preparation of nurses to teach family members?

(10) What beliefs are prevalent regarding diet in its relation to health, especially for the pregnant woman, the young mother and the infant at the time of weaning?

(11) What beliefs determine practices related to birth and death?

(12) What religious observances must be known by every nurse, and what teaching must be included in the programme regarding the nurse's care of patients in the light of their religious needs?

(13) What conflicts may be expected as students gain in scientific and medical knowledge which may be at variance with their own beliefs and those of their patients and families?

(14) What beliefs, customs and traditions in health practice could be respected by modifications of traditional nursing content and practice? What practices need to be replaced?

*Communications*

(1) Road, rail, air, water. Are there areas of the country which are cut off during certain seasons? Is use of health agencies seasonal for this reason?

(2) Do people move about freely? How does this affect recruitment of students from less accessible areas, and assignment of prepared nurses to such areas?

(3) Language—is there a common language? What provision is there for communication between language or dialect groups? What is the language of the schools? Of the professions? Is there a different professional language? How do the people feel about the use of this language?

(4) Newspapers, radio, television. What is the literacy rate for various age groups? What proportion of families have radio? Television? To what extent are these media used for health education?

*Government*

(1) What is the pattern of government? To what extent is control centralized at the national level and to what extent delegated to provincial (or state) authority and to local authorities, with respect particularly to health, welfare, and education? What planning for nursing service and for nursing education is done at the various levels?

(2) Are there frequent changes in ministers and other key administrative officers in the national government or at other levels? If so, how does this affect working relationships and the time to make and carry out plans? How is continuity maintained?

(3) What divisions of the government are responsible for health, welfare, and education?

(4) What divisions are responsible for preparation of personnel for these services?

(5) What specific problems are associated with the system of civil service? If there is no civil service system, how are government personnel policies established and administered? What provision is there for continuity of office? Are personnel qualifications and tenure so rigid as to restrict progressive development of plans? For instance, is change in nursing practice in hospitals made difficult because personnel cannot be reassigned to suit changing standards of care?

(6) What are the channels for involving top administration in the planning for nursing education? Does the government include among its administrative officers competent nurses with authority to assist in planning health services, define the role of nursing in those services, and determine personnel requirements?[1] If it does not, what alternative access is there to top administration?

(7) What possibilities are there for co-operative action between government departments; for instance, between the Ministries of Health and Welfare and of Education, Ministries of Health and Agriculture, etc.?

*Economy*

(1) What are the major occupations of the people and what is the average annual income per family? per capita? What proportion of women are employed? In what kinds of work?

(2) What proportion of the population is employed in industry? In agriculture? How stable is the economy? Is it expanding and what are the predictions for the next ten years?

(3) What is the volume and type of exports? imports?

(4) What are the main sources of national revenue?

(5) Is there economic aid from outside the country? If so, is health one of the services assisted? Do plans assure continuance of an assisted programme within the resources of the country? For instance, will a school of nursing being developed with outside aid be supported from within the country when aid is withdrawn? The type of school designed must be within the ability of the economy to support.

*General education*

(1) What is the general education pattern—years of primary school, years of secondary school, standards for university matriculation, etc.?

(2) What proportion of boys and girls complete primary education? Complete secondary education? Enter vocational or professional schools? Enter universities?

(3) What is the usual school-leaving age for girls and for boys?

[1] World Health Organization, Expert Committee on Nursing (1950) *First report*, Geneva, p. 8 (*Wld Hlth Org. techn. Rep. Ser.*, 24)

(4) What is the distribution of school population in government schools? Private schools? Of private schools, what is the distribution of students in secular and in religious schools?

(5) What is the variation in programmes offered between urban and rural schools? Is there a variation between government schools and private schools?

(6) What is the curriculum in the schools from which nursing candidates may be drawn? Are sciences and mathematics taught to girls as well as to boys? What language is used? If this is not the language used in the professional schools such as nursing, what opportunity is there for potential nursing students to learn the language of the nursing schools?

(7) What methods of teaching are used? Will future nursing students be familiar with discussion methods and problem-solving methods as well as with lecture and recitation?[1] To what extent are students familiar with the use of libraries?

(8) What is the system of student evaluation and what kinds of records might be available for evaluating nursing school applicants?

(9) What are the trends in general education? Are the curricula and the teaching methods undergoing change, and are new facilities being developed? How will these changes influence nursing education in five or ten years' time?

(10) What are the opportunities for adult education? In what ways is it possible for practising nurses to enrich their educational background?

(11) What colleges and universities offer nursing education programmes? Are nursing students fully matriculated? What colleges or universities offer instruction to nursing students through an arrangement with a school of nursing?

(12) What educational facilities in the community might be available for use by the school of nursing (libraries, museums, audio-visual aids, laboratories, other types of schools, etc.)? What sources are there of teaching personnel who might be used in nursing education programmes?

(13) What is the attitude to higher education? What is the importance attached to academic degrees? In some communities where the emphasis in education is on scholarly achievement, there

[1] World Health Organization, Working Conference on Nursing Education (1953) *Report*, Geneva *Wld Hlth Org. techn. Rep. Ser.*, 60)

may be a feeling that there is no dignity in applied learning or in the development of technical skills.

(14) What are the educational requirements and training facilities for schoolteachers? Have these implications for the education of nurses and the teachers of nurses?

(15) What is the attitude of schoolteachers and educational administrators towards nursing? What do they know about it? How will this affect recruitment of students?

## HEALTH NEEDS AND SERVICES: NURSING

### *Health needs*

(1) What are the major health problems and special health problems as shown by health statistics? How complete and accurate are the statistics? Supplementary information can be sought through observation of people in hospitals, health centres and clinics, and by consultation with health and welfare workers and teachers, including those in direct contact with patients, families and community life.

(2) How do these problems vary in different parts of the country? Factors contributing to variation may be occupation, environmental sanitation, social and economic stresses, availability of food and food preferences. A knowledge of health problems and contributing factors will be needed to determine the content of nursing education.

(3) What are the health practices of the people? (see also page 13). Do people use doctors and hospitals freely? For certain illnesses and conditions only? As a last resort only? What types of healers not medically trained are used?

(4) What do health personnel feel are the needs for additional health services, facilities and personnel? How do leaders not in the health field see these needs? Is there popular demand for added health services? If so, of what types?

### *Health services*

To understand the way in which a community meets its health needs, it is necessary to know how the government plans, organizes, administers, and finances its health services: also, how government functions are supplemented at its several levels by non-governmental organizations, agencies and individuals. In addition one needs to

know the kinds and numbers of agencies which provide health services to the people, and what personnel are employed; their qualifications, their preparation and employment policies.

(1) What is the organizational plan for providing health services? What are the administrative relationships between national, intermediate (provincial or state), and local health authorities?

(2) What legislation is there relating to hospitals, and other health agencies? How specific are the standards regarding nursing personnel? For instance, ratio of nurses to auxiliary nursing personnel, position descriptions and qualifications? Do nurses share in setting standards? What is the provision for inspection?

(3) How are costs of medical and hospital care met? An analysis of sources will indicate stability of financing. How complete is government subsidy to institutions? What health insurance programmes are in effect? What proportion of the population is covered by health insurance and to what extent? What share of cost is met by patient fees? Are there other sources—community-sponsored, philanthropic organizations, etc.?

(4) Do plans for expansion of health services include the hiring of the additional personnel who will be needed? Do plans include provision of education and training facilities to prepare these additional personnel?

(5) What agencies provide services?

(*a*) What are the general and special hospital facilities, both governmental and non-governmental, and how distributed countrywide? What are the bed capacity, occupancy rates, and staffing patterns as they affect both medical and nursing personnel? What are the kinds and extent of clinical services? What teaching programmes are provided within hospitals? The names of key people, medical directors, administrators, directors of nursing service, and of nursing education will be needed as a basis for further inquiry.

(*b*) Is out-patient service a part of hospital function or provided in separate clinics? How available is out-patient service to all segments of the population and how fully used?

(*c*) What health services are available in health centres, schools, and industry? Is medical care a part of these services? How completely is the population reached? What services have priority at present? Communicable disease? Maternal and child health? What are projected as the priorities in the next decade? If special

control programmes have been completed or are in progress, what has been accomplished (for instance, an intensive immunization programme)? How will the changing health priorities affect nursing education?

(*d*) Is maternity care provided by physicians, midwives, traditional birth attendants? In what proportion? What proportion of mothers are delivered at home? In maternity homes? In hospitals?

(*e*) What is the extent of the private practice of medicine, nursing, midwifery? How extensive is the service provided by private clinics, private maternity homes, private hospitals?

(*f*) What is the extent of health service under organizations such as the Red Cross, the Anti-Tuberculosis Association, religious groups?

(6) What personnel are available, how prepared and how used?

(*a*) What is the ratio of health personnel to population? Doctors? Nurses? Midwives? Dentists? Others? In urban areas? In rural areas?

(*b*) What are the facilities for basic and advanced training of doctors, nurses, midwives, others? Are facilities provided by government or under other sponsorship? If by government, to what extent are they financed from national budget, state or provincial funds, local or municipal funds? If by universities, is there a national subsidy? What is the cost to the student?

(*c*) What are the personnel policies for health personnel in governmental agencies? How do they differ in non-governmental agencies? How stable is staffing? What are reasons for attribution? Are budgeted positions filled? Planning for training of nurses needs to consider staffing of new facilities, replacement of staff and filling of positions budgeted but not filled.

*Nursing*

*Nature of nursing care*:

(1) What specific functions are nurses in different services performing? What do nurses see as their future role (within the realities of conditions now and in a reasonably near future) in

(*a*) Giving skilled care to the sick and disabled;

(*b*) Serving as a health teacher to patients and families;

(*c*) Making accurate observations of physical and emotional

situations and conditions ... and communicating these observations to other members of the health team;

(*d*) Selecting, training, and giving guidance to auxiliary personnel ...

(*e*) Participating with other members of the team in analysing needs, determining services needed and planning facilities and equipment to carry out these services effectively? [1]

(*f*) Creating an environment which contributes to good health.

(2) To what extent do nurses who are recognized as qualified (graduate, registered, certified) give personal care to patients and to what extent do they teach, administer, and supervise care given by other nursing workers or by families?

(3) To what extent are medical functions their responsibility; for instance, minor surgical procedures, intravenous therapy, anaesthesia? Do they take X-rays? Do they dispense pharmaceuticals?

(4) To what extent do the activities of nurses in hospitals and health centres include housekeeping duties, food preparation, clerical duties?

*Attitude towards nursing*:

(1) Has the status of nursing changed in recent years? A review of the history of nursing in the country would contribute on this point.

(2) Does the public see nurses as manual workers, vocational workers or professional people?

(3) From what families do they come; those of labourers, clerical workers, small business people, civil servants, professional people? Is this changing?

(4) What is the role of the nurse in the eyes of other health personnel? How does she see herself?

*Distribution of nursing personnel*:

(1) Are the nurses male, female, or do both sexes train as nurses? [2] If both, is the practice area for each group limited, and how?

[1] World Health Organization (1956) Report of Technical Discussions at The Ninth World Health Assembly. Nurses: Their Education and their Role in the Health Programme. *Chron. Wld Hlth Org.* 10, No. 7

[2] Throughout this guide, the term nurse is used to refer to both men and women. Since women are more numerous than men in nursing, the feminine pronoun is used.

(2) What categories of nursing personnel are employed? Are the qualifications and functions of each category defined and accepted?

(3) What is the number of nurses (all categories) employed, and what is the ratio to population?

(4) What is the number of midwives, assistant midwives, traditional birth attendants?

(5) What is the ratio of nurses to auxiliary nursing workers, throughout the country? in institutions? in public health services?

(6) What percentage are employed in institutions (hospitals, clinics), public health services, industry, private practice, schools, communities? What percentage in rural areas? urban areas?

*Administration of nursing*:

(1) Are nurses represented at national, intermediate and local levels of the government health service? If so, are the functions of nurse officials advisory? administrative?

(2) What are the channels of communication to nursing service administrators in the individual agency? to teachers in the individual schools of nursing?

(3) If there are not nursing officials in the health services, what individuals or groups in government administer and advise on nursing?

(4) Is there a civil service system which includes nurses? auxiliary nurses?

(5) How are salary scales and employment policies determined? Are qualifications, responsibilities and terms of employment defined for different positions, i.e., chief nurse, ward sister (head nurse), staff nurse? Are they uniform for all government health agencies? Is there a promotion policy? Is promotion based on length of service, merit, or both? Is there tenure? Is there a pension scheme? How do salaries and promotion policies for nurses compare with those for other health personnel? Teachers?

(6) How do salaries and employment policies in non-governmental health agencies compare with those in government agencies?

(7) Are budgeted positions filled? Are there established positions for which there is no budget?

*Control of nursing practice and nursing education*:

(1) Is there nursing legislation? at national, intermediate or local level? Does law define the practice of nursing, and is this definition

commonly accepted? If there is no legislation on nursing as such, how are nursing practice and nursing education controlled and by whom?

(2) Who administers the law? What budgetary provision is made to carry out the activities provided in the law? Is there a permanently employed staff? nurses? midwives? clerical staff? others?

(3) What are the qualifications for licensure? what categories of nursing personnel are licensed to practise? Has a waiver licensed nurses whose qualifications do not meet present standards? If so, has this resulted in wide variations in the quality and nature of service?

(4) If examinations are required for licensure, how and by whom are they prepared and administered? What subjects are covered? If examinations are based on prescribed syllabi, how does this affect the possibility of curriculum change? What will be the effect on new programme planning if examinations in stated subjects are required at specified intervals during the training period? What are the provisions for re-examination in case of failure?

(5) Is there provision for renewal of the licence to practise? If so, are there records of the distribution of actively practising nurses and midwives in the various fields? Such records are useful for evaluating nursing resources and for estimating the numbers of students to be recruited.

(6) Is there a definition of malpractice and provision for prosecution in case of malpractice?

(7) What is the procedure for modification of the law?

(8) Are the regulations and standards for nursing and midwifery schools written into law, or does a nursing board or committee have authority to set them? If so, what is the composition of the board?

(9) Is there provision for experimentation within the regulations?

(10) What are the regulations for nursing schools and midwifery schools with respect to:

(*a*) approval of schools
(*b*) financing
(*c*) administration
(*d*) personnel
(*e*) facilities and equipment
(*f*) clinical practice facilities
(*g*) admission, promotion, and graduation

(*h*) programme, theoretical and clinical

(*i*) student accommodation and health care

(11) How are schools initially approved? Is there regular inspection and advisory service to schools? By whom is it provided? Is renewal of approval required and how often?

*Nursing organization*: [1]

(1) Is there a national nursing association? Does it have affiliation with an international nursing association? Are there other nursing associations?

(2) What is the stated purpose of the association? Has it a constitution? A code of ethics?

(3) What is the structure of the association?

(4) What are the requirements for membership? What proportion of practising nurses are members? What provision is made for student nurse membership? For membership of auxiliary nurses?

(5) What are the activities of the association? Meetings, frequency and content? Publications? Education activities for members? Non-members? What responsibility does the association assume for conditions of employment? For standards of nursing education?

(6) What is the working relationship between the association and the national health administration? Is the association represented on national health committees? councils? boards of examiners?

(7) Do nurses belong to associations of other related professions, such as the public health association?

## STUDY OF EXISTING SCHOOLS OF NURSING

The purpose, extent, and approach to a study of the present system of nursing education will vary in different situations. A study may be concerned with only one school of nursing, or it may include all the schools in a selected community, such as one state, or it may be nation-wide. This Guide indicates briefly the information which should be obtained about the general pattern of nursing education, and then discusses in more detail the study of a single school of nursing.

[1] If there is a midwives' association, comparable data regarding it should be sought.

*General pattern of nursing education*

(1) What is the history in the country of the development of educational programmes for nurses? for midwives?

(2) What is the total number of schools?

(3) For each school, the following identifying data are needed:

(*a*) Name, location, controlling authority, year founded, director. If director is not a nurse, highest ranking nurse of school staff.

(*b*) The level of nurses prepared; assistant, basic professional, post-basic? Field for which programme prepares; institutional, public health? Speciality, if any: mental nursing, child nursing, midwifery, etc.? Functions, if post-basic; education, supervision, administration?

(*c*) Length of course.

(*d*) Number of students admitted and graduating each year (for preceding five years). Are students admitted by classes? How many classes each year?

(*e*) Admission requirements.

(*f*) Number and preparation of full-time faculty members (nurses, others).

(*g*) Facilities used for practical experience: name, type of agency, location, chief administrative officer, chief nurse.

(*h*) Broad areas of curriculum content; medical, surgical, maternity, paediatric, psychiatric, public health?

*Study of a specific school of nursing*

Identifying data will be available in the material gathered regarding the general pattern of nursing education.

*Purpose*:

(1) Is there a stated general purpose, and a statement of more specific objectives for the school? When and by whom was it prepared?

(2) If so, is the purpose directed towards preparing the kind of nurses needed for the health services and for sharing in solving the health problems of the country?

(3) Do the objectives include development of the student with respect to personal growth and social relationships, citizenship responsibility, and leadership in the health services and in the community?

(4) Are the purpose and the more specific objectives realistic in terms of the educational background, ability, and maturity of the students available for selection?

(5) Can the purpose be fulfilled by the programme offered and through the facilities available for teaching and learning?

(6) To what degree does the programme seem to have evolved from the general purpose?

*Administration*:

(1) What is the controlling authority, and what is the source of funds for the school?

(2) In the opinion of the controlling authority, what is the purpose of the school? It may be purely educational, or an adjunct to the nursing service in related agencies, or a combination of the two.

(3) Who directs the school? Is there a single director or a board of directors? How is the director appointed? If the director is not a nurse, does the highest ranking nurse member of the school staff share in determining policies, planning, and evaluating progress? Is there an advisory committee, and are its functions defined in writing? What are its functions? How does the administrative pattern compare with that of other professional schools?

(4) What responsibility and authority is given to each member of the administrative and teaching staff? Are there position descriptions with a definition of qualifications, a delineation of responsibilities and authority and a statement of working relationships?

(5) What provision is there for members of the school staff to take part in policy-making and planning at the level of their respective competencies? Is there committee organization for such functions as selection and admission of students, promotion and graduation, curriculum and course planning, health service and other student services?

(6) What provision is made for school personnel to work with nursing service personnel in preparing for and in providing practical experience in service agencies? Is there organization of joint committees at the various levels with authority for recommending action to modify practice facilities and teaching plans?

(7) What are the "authority concepts" as they affect administrative and educational practice in the school? Do those administratively responsible use the experience and opinions of those

under them in reaching decisions, and are staff experienced in contributing opinions? How is this accomplished? Is the accepted pattern one in which directives are passed down through the levels of authority and accepted by those at the operating level without opportunity for discussion and adjustment of plans? Is there a combination of these patterns? How is this pattern reflected in methods of teaching and in job performance expected of the graduates?

(8) How does the medical profession's concept of nursing and nursing education affect school purposes and policy?

(9) Is there a budget for the school or are its various activities paid for by assignment of funds from various segments of the budget of the controlling authority?

(10) If there is a budget, who prepares it? How do school staff share in defining the programme used in preparing it?

(11) What are the sources of income and what are the figures for the last financial year with respect to:

(*a*) student fees;

(*b*) funds from sponsoring body;

(*c*) government appropriation;

(*d*) others.

(12) What are the figures for the last financial year with respect to the following expenditures:

(*a*) salaries: full-time administrative and teaching staff, part-time staff, and service personnel;

(*b*) equipment and supplies;

(*c*) maintenance of buildings and schoolrooms;

(*d*) student maintenance and housing;

(*e*) student health service;

(*f*) student financial aid: scholarships, stipends, etc.

(*g*) transportation for teaching staff and students;

(*h*) other costs.

(13) If some of these items are provided from sources outside the school budget, what is the basis for their payment? For instance, are student stipends considered to be payment for nursing service, and how is the amount determined? If there are such stipends, what effect does this arrangement have on the freedom of the school in assignment of students for clinical experience?

(14) What administrative arrangements are made with service agencies providing nursing experience for students? Are there contracts or written agreements? It is important to know whether such agreements are made with the "home" hospital as well as with other agencies. What agreements are there for:

(*a*) kinds of nursing experience to be provided;

(*b*) numbers of students to be assigned;

(*c*) duration of kinds of experience;

(*d*) supervisory responsibility for patient care provided by students and for student learning, including evaluation. Instructor responsibility for student assignments, learning in the clinical situation, and evaluation;

(*e*) daily and weekly schedules, night duty, etc.;

(*f*) student maintenance, living provisions, and health care;

(*g*) transportation;

(*h*) consultation between school and agency; what communication channels are authorized at various levels of operation? What provision is there for personnel at these levels to make recommendations?

(*i*) financial recognition of service to the school, to the agency;

(*j*) termination of agreement.

*Teaching and administrative staff*:

(1) What is the preparation of staff members for the work they are doing (general education, professional preparation at the basic and advanced levels, quality and extent of nursing experience, clinical areas where that experience was gained, preparation for and experience in teaching)?

(2) What is the educational philosophy of the teaching staff? Do they see teaching as creating a stereotype? Do they see teaching as creating a means for the individual student to develop towards understood goals? Do they see evaluation as a means for the teacher to help the student to recognize her strengths and weakness and to proceed with enlightenment?

(3) What are the qualifications of and the regulations regarding part-time instructors? How are they oriented to the objectives of the school and to the way in which their special subjects fit into the total curriculum? Do they share in planning the over-all programme? Does the school give equivalent status to nursing and other professional

personnel (physicians, social scientists, etc.) who contribute to the teaching?

(4) What is the work-load for the various members of the staff? To ascertain this, it may be desirable to do a time-study of the classroom and bedside teaching, administrative, clerical, counselling, and committee activities of the present staff for a typical month in the school year.

(5) What personnel policies are in effect? Salaries and provision for increases? Holidays, annual leave, sick leave? Living allowances, if any? Health care provisions? Retirement plan? What is the working schedule? Daily, weekly? Are there evening duties?

(6) What provision is there for promotion of competence? Regular counselling? Organized in-service training? Leave of absence for study meetings, institutes, professional association meetings, advanced study?

(7) What are the community resources for general and professional education for staff members?

(8) Is there a business officer? What are his responsibilities and authority? If not, who is responsible for business operation of the school?

(9) What clerical assistance is available? Who maintains records, types and duplicates teaching materials, maintains file of teaching equipment, etc.?

(10) What personnel are provided for special services? Maintenance of library? Supervision of student nurses' home? Personal counselling of students? Housekeeping of teaching and residence quarters? Health care of students?

*Organization of student services*:

(1) What opportunities do the students have to practise the health habits and inter-personal relationships which they are taught and are expected to teach others?

(2) Is there a pre-entrance physical examination which becomes a part of the comprehensive health record? Are there periodic health examinations?

(3) What is the system for reporting illness and what allowance is there for sick leave? What provision is there for medical care in the school or on affiliation? Is dental care provided?

(4) How is the health programme used as a learning experience for the students? For instance, do students participate in planning their own diets as a part of nutrition instruction?

(5) Are the living arrangements adapted to the culture of the community? Do they conform to acceptable standards of hygiene?

(6) How is the food service managed? Are nutritional needs being met within the eating patterns of the culture?

(7) What responsibility does the school assume for recreation and social activities of the students? What responsibility for determining and planning these activities is assigned to students?

(8) What provision is there for counselling and guidance of students, not only educationally, but also in connexion with their personal and social adjustments?

(9) What opportunity do the student nurses have for contact with other students of their age-group? How does their social status compare with that of other students?

*The student body*:

(1) What is the background of the students with respect to national origin, religion, family occupation, geographical origin, and general education?

(2) What is their facility at time of admission in the language used by the school?

(3) What is the average age at time of admission? Does it coincide with the usual school-leaving age?

(4) What is the marital status of students? Must personal responsibilities for home and children be considered?

(5) What are the selection and admission procedures? Is there a large enough group of applicants to make qualitative selection feasible?

(6) Who reviews the completed application? Who makes the final decision as to acceptance of the student? In some countries admission is decided on the basis of examinations given and evaluated by a government authority. If this is the case, how does this policy affect the purposes of the school, and what measures are or might be taken to enable the school to share in decisions regarding admission of students?

(7) Do admissions procedures permit use of medical consultants to evaluate the physical and mental status of applicants?

(8) What are the enrolment statistics for the year just completed (total enrolment, by classes, number admitted, number withdrawn, number graduated)? How do these figures compare with those of the preceding five years? What are the anticipated admissions for the following five years?

(9) What is the rate of withdrawal? At which stages in the programme do students withdraw and for what reasons? An analysis of withdrawals by a social scientist would provide helpful data.

*The curriculum and educational facilities*:

(1) Are decisions as to curriculum planning directly related to the stated purposes of the school?

(2) What courses are offered and how are they organized (analysis of content is more helpful than of hours of teaching)? Are the courses organized so that there is effective correlation and integration? For example, what correlation of subject matter exists between the science and nursing classes? Between classwork and clinical experience? Is there provision for integration of the health aspects of nursing, throughout the curriculum?

(3) Are courses planned so that learning proceeds from the simple to the complex? For instance, is a general introduction to health services given in the first year, and details and complexities of services for children given when paediatric nursing is studied later in the programme? Are courses planned so that learning proceeds from the normal to the abnormal?—from learning about the well child to learning about the sick child?

(4) Do instructors have an opportunity to plan together their individual courses as a part of the whole programme so that later learning reinforces earlier, and yet without undesirable duplication? (one student nurse kept a record of the number of times she had heard polymorphonuclear leucocytes described).

(5) What is the total length of the programme? The plan for successive years, the plan within each year? Are there periods of uneven distribution of classwork for either students or teachers?

(6) What is the student's weekly load at different stages in the programme? What time is allowed for classwork, preparation for classes and clinical experience, clinical experience, personal needs,

recreation and social life? When during day or evening are classes scheduled? Is there an assured period in each week when the student is free for her own pursuits?

(7) Who plans rotation schedules and assigns students for clinical experience? Who teaches students in clinical areas?

(8) How much attention is given to providing an even distribution of students in any one clinical area throughout the year? What factors determine policy in this respect? Stability of staffing? Ward teaching schedules? Distribution of teaching load for clinical teaching staff?

(9) Is clinical experience the same for all students? If not, is the variation due to lack of facilities to provide experience for all? Is it due to individual needs or interests of students? Other reasons?

(10) What clinical experiences are provided? In hospital, what patient care units caring for what types of patients? What other hospital departments, as X-ray, pharmacy, central supply? In out-patient departments, special clinics as a part of other teaching, for instance pre-natal clinic as a part of maternity nursing, or general experience not related to kinds of care? In other hospitals, health centres, etc.? Are some experiences limited to observation?

(11) In the services used, how adequate is staffing in the absence of students? Are periods when service needs take precedence over educational needs recognized as apprenticeship periods in which learning may be undirected and incidental? An analysis of the staffing in several representative hospital wards would be valuable. It should show numbers of nursing personnel, categories, hours of service provided by day, by night, and on a seven-day basis in relation, of course, to numbers of patients, intensity of care needed, etc.

(12) In the services used for clinical experience, what is the character of the nursing care provided in terms of the functions of nursing noted on page 19?

(13) How closely does the clinical situation approximate to the "ideal" which the students have been taught in the classroom? Have specially planned teaching units been developed in selected wards and health centres to which students are assigned for their clinical experience? Or are they assigned to average clinical situations? Are they given experience in helping to develop methods which will improve nursing service? Does classroom practice and clinical instruction provide opportunity for the students to learn to apply good principles of nursing in situations with varying kinds of equipment, procedures, and traditions of care?

(14) In hospitals used for clinical practice, what method or combination of methods is used in assigning nursing activities? Functional?—that is, are all medications given by one nurse, all dressings done by one nurse, etc.? Patient assignment?—is each nurse given responsibility for complete care of a number of patients? Nursing team?—is a group of nursing personnel of different levels assigned under a team leader to care for a group of patients?

(15) How many other types of students (midwives, assistant nurses, medical students, etc.) are assigned to the same clinical units as student nurses and to what extent does this affect student experience?

(16) If planning, supervision and evaluation of students' clinical experience is done by nursing service personnel, what preparation have they for this educational function? Are they members of the school faculty? What orientation do they have to the purposes, philosophy and total programme of the school?

(17) What is the interest and attitude of clinical personnel such as head nurses and doctors towards participation in the clinical teaching programme?

(18) In planning for each clinical experience, do the head nurse (ward sister) and the instructor work together on objectives, selection of experience (patient care, and other learning activities), schedule of experience, and evaluation?

*Teaching methods*:

(1) What methods of teaching are used? Is there use of lecture, demonstration, various forms of group discussion? Does group discussion include patient and family care conference, planning of patient care? Do physicians conduct bedside clinics? How are individual conferences planned and used? Is the situation approach to learning used?[1] Are nursing care plans and nursing care studies used in this connexion? Does a limitation in nursing literature in the language used require dependence on more hours of classroom teaching than would be needed if students could do more reading?

(2) To what extent do assignments in both classroom and clinical experience assist the students to develop skill in problem-solving and in communication?

(3) How is student progress evaluated? Is it based on objectives defined for a particular course or experience? What emphasis is given to factual knowledge, to skills, such as manual dexterity, to

[1] World Health Organization, Working Conference on Nursing Education (1953) *Report*, Geneva (*Wld Hlth Org. techn. Rep. Ser.* 60)

communication, to teaching, to attitudes and insight? What forms have been developed as an aid to the instructors? Is evaluation seen as a means for students to examine their own progress and share in planning further steps?

(4) What grading system is used? For written work? For class participation? For achievement in clinical assignments? What is the relation of this system to promotion policies?

(5) To what extent do examinations require discrimination and judgement as well as knowledge of facts?

(6) Are staff conferences held for student evaluation? Do nursing service personnel contribute directly? Indirectly?

*Other educational facilities*:

(1) What provision is there for offices for the director, instructors, and business and clerical personnel? Is privacy for conference with students and others assured?

(2) Is there storage space for records, teaching equipment, etc.?

(3) How many classrooms are there? How adequately are they furnished? Are there rooms for small informal discussion groups as well as for large lecture groups? Is the furniture movable? Are lighting, ventilation, and heating arrangements adequate? Is there blackboard space? Can the rooms be darkened for showing slides, films, etc.?

(4) Are conference rooms, bulletin boards, and reference materials available in or adjacent to the clinical practice fields?

(5) Is laboratory teaching used, and what laboratory facilities are available? If laboratory teaching is limited, is it because of lack of equipment, preference for lecture method on the part of teachers, other reasons? What facilities in the community might be used if laboratories are not provided? Are classrooms or laboratories shared with other groups of students? If so, what is the system for scheduling their use?

(6) What audio-visual materials are available and used? Has the school developed its own posters, films, film strips, etc.? How does the individual teacher secure aids and equipment? Are projectors readily accessible for use?

(7) Is there a library, centrally located and available to the students and teachers during the hours they are free to use it? Is lighting and heating conducive to its use? What is the system of

cataloguing? Are students instructed in its use? What is the system of borrowing?

(8) What books and periodicals are kept? Are the reference books up to date? If individual textbooks are not provided, are there enough library copies for the size of the group?

(9) Are written materials available in the language of the students? What use is made of translations of current articles from other languages? What textbooks or other publications have originated in the country? Is there a need for materials to be written specifically for use in the country?

(10) What other libraries in the community can be used? Are arrangements made to borrow books from these libraries? What are the provisions for reading in related fields?

*Records*:

(1) How is information as to policies and procedures recorded?

(2) What committee records are available?

(3) What records of staff are kept?

(4) What records of the teaching programme are available? Schedules of classwork? Rotation schedules, past and current? Course outlines? Grade books?

(5) What records of individual students are kept and how filed? Are there individual folders? If so, do they include application data, health record, correspondence, progress reports, conference notes, evaluation data, final evaluations?

(6) Do teaching staff have access to student records?

(7) Are records as to graduates' achievement in licensing examinations available?

(8) What records of graduates are maintained?

(9) What is the inventory system, and how is it maintained?

*Evaluation of programme*:

(1) What follow-up is made of the graduates of the school? The positions they take? Their achievements? Further study?

(2) If there are national examinations, is information available to the school as to the performance of its graduates in comparison with that of graduates from other schools?

(3) Is advisory service available from nursing officials in the state or national health administration, to assist the school in applying data regarding examination performance to planning? Is this advice shared with staff?

(4) What opportunity is provided for staff to analyse and revise the curriculum? How recently have changes been made?

(5) What do the teaching and administrative staff currently feel to be their greatest problems and needs.

# PLANNING FOR A BASIC SCHOOL OF NURSING

## THE PLANNING PROCESS

Planning takes time, either for a new nursing education programme or for the modification of an existing one. The time involved in initial planning will vary. The urgency of the situation may require that action begin almost simultaneously with planning. This is not desirable. Plans made in haste must be recognized as short-term in character and subject to change. In such a situation a firm schedule for reassessment and replanning should be agreed upon and the fact accepted that as long-range plans are defined, the initial plans will need revision. Long-range plans, too, will need to undergo change, but more slowly. It is essential, therefore, that individuals or groups involved in planning make provision for a continuing programme of study—planning, action, evaluation, restudy, replanning, re-evaluation.

Planning must be co-operative. There may or may not have been a committee for the fact-finding phase, but planning for the kind of nursing education which will effectively serve the community requires the co-operation of representatives of nursing, medicine, health administration, education, and the public. These individuals are needed not only for their contributions to the making of effective plans but because of their potential interest and support in interpreting and implementing the programme.

Leadership in this group effort should be taken by nurses. The group should include nurses from the government department responsible for health services and for nursing education, the nursing association, existing schools of nursing, and nursing services. Planning may be initiated by any one or by a combination of these, or by nurses of an international agency.

Representatives of the national health administration other than nurses are needed. Their comprehensive knowledge of all the services and of processes involved in implementing the programme will be essential. Representatives of the medical profession and other health professions are also essential. In countries where there has been

ittle nurse leadership in the past, and where physicians have planned whatever training has been available for nursing personnel, there will be individual doctors keenly interested in new developments. They will be important in contributing on the basis of their experience and in developing understanding and support among their colleagues and in their professional associations. Educators will be helpful in the identification of educational philosophy, educational trends, and methods which must be understood in order to design an educational programme. Educators from other professions can be helpful. In some countries the engineers have had valuable insight relating to the problems of nurse educators. Nurse members will have an awareness of apprenticeship learning in nursing and together with educators will be able to see how transition from "training" to "education" can be achieved. Other committee members must represent the community viewpoint as distinct from the special interest viewpoint of health personnel and educators. They need to be leaders, both because as leaders they will be able to contribute considered judgements and because they will be in a position to interpret the programme to the public, to the consumers of nursing, and to families of potential students. They, as leaders, will be helpful, if the need arises, in working for changes in the law and modifications in the administration of nursing. It is desirable to include community members who are also close to other professions and interests, the law, business, industry, communications.

The scope, the functions, and the calendar of such a planning committee will vary. It may be concerned primarily with designing an administrative pattern for nursing education in a country, in which case analysis of the standards for an individual school will be a part of the study. It may be concerned primarily with an individual school, in which case a review of the community and the administration of nursing and nursing education will also be needed. The proposals made will relate to the specific objective, but may well include related objectives. For instance, plans for a school may require recommendations as to the regulations controlling schools.

The direction of the committee and its activities will require administrative skill. The committee's general purpose must be clear. Communication must be carefully planned; for example, agenda for meetings and relevant information should be distributed well in advance. Requests to individual members for contributions of time and energy must be reasonable. Much of the detailed work will have to be done by carefully chosen small subcommittees who will be responsible for presenting proposals to the whole group. The committee's effectiveness will depend on the degree to which each

member is active, and on the ability of the group to use the unique contributions of the members.

The work schedule made initially may change as study proceeds. What started as a limited task may assume larger proportions. For instance, it may be found that before a school can be opened, the clinical facilities to be used by the school need development. This will involve a refocusing of plans, investigation of ways and means, further deliberations and possibly a postponement of the opening date for the school. Planning may have to be diverted to a consideration of legislation required for implementing the plan. It is suggested that haste in proposing legislation should be avoided, if a reinterpretation of regulations will allow the programme to get under way. Perhaps a waiver of current regulations to permit experimentation for a limited time can be arranged. A chance to develop the programme to the point of demonstrating desirable standards would result eventually in more effective legislation.

Planning takes time; it must be co-operative; and enough has been said to illustrate a third point—it is not possible to foresee, when planning starts, just how long it will take or how far it will lead. Preconceived ideas should be held lightly. This is difficult, because the programme in view is so important and the eagerness to produce is so pressing. Whatever the time required, if the members of the group can be aware of what has been learned in the fact-finding phase, planning will tend to be a search for the programme which in the long run will be best for the community.

## THE OVER-ALL PLAN FOR TRAINING OF NURSING PERSONNEL

An over-all plan for nursing education will make provision for preparing all nursing personnel needed; auxiliary workers, staff nurses, leaders for supervision, administration and education. It will be necessary also to plan for in-service training of existing personnel; only by including this group can nursing services evolve smoothly without a sharp cleavage between the old and the new.

Before planning for individual schools, a series of proposals covering the whole range of nursing education needs should be drafted. Such proposals might:

(1) name and define the types of nurses and midwives needed;

(2) estimate the numbers of each level to be prepared in a specified time period;

(3) propose plans for the preparation of each type of worker at the various levels —

(*a*) objectives of the training programme

(*b*) administrative framework

(*c*) students—number and admission requirements

(*d*) general curriculum plan—length of course, areas of study and clinical practice

(*e*) teaching staff—number and qualifications

(*f*) teaching facilities, including those for clinical practice

(*g*) housing and living facilities

(*h*) estimated costs;

(4) suggest a plan for employment of graduates in actual and proposed health services;

(5) propose a programme for evaluation; a periodic review of how the graduates meet needs, of changing needs, and of implications for replanning;

(6) project a possible raising of standards and goals at the end of a specified time period.

In some situations such a plan may have been developed and the planning committee could study it, assess its suitability in terms of present findings, modify it as required, and then move on to recommendations for action.

If no plan exists, a consideration of needs will be the first step in planning. Data gathered during the fact-finding phase will be helpful. It may have been possible to analyse detailed and specific information as suggested in the Guide for National Studies of Nursing Resources.[1] There will need to be considerable reliance on best judgements, based on what seems realistically possible. In the guide mentioned above, for instance, caution is advised in use of data:

"A distinction must be made between the theoretical need for nursing services, based on what would be best for the population, and the actual demand for nursing personnel, which may be far below this need. Existing demand in this sense may be measured by the number of budgeted positions, filled or unfilled. Future demand may be estimated by adding the anticipated reasonable expansion in relation to the economy of the country and potential awareness of the need for nursing services. Actual plans for the expansion of hospital services and health services outside the hospital are helpful in calculating future demand".[1]

[1] Arnstein, M. G. (1953) *Guide for national studies of nursing resources*, Geneva

In adoption of standards as to numbers needed, many factors in the particular situation will need to be considered. For example, the ratio of nurses to auxiliary personnel may depend on the availability of applicants qualified to enter a school of nursing. At first relatively few applicants may be available for the kind of training which will equip them to direct the activities of auxiliaries. Later, as more students with a good standard of general education become available, it may be possible to increase the proportion of nurses.

Survey of needs can be a discouraging phase, and planners will usually be glad to put aside statistics and the vision of a halcyon future in order to concentrate on what they see as possible immediately and in the foreseeable future. In presenting their proposals to those responsible for education of personnel for the health services, and in making recommendations for the establishment of programmes which are of first priority, the committee will wish to make clear that simultaneous training of all categories of nursing personnel is the eventual aim.

In most countries priority is given to the development of basic schools of nursing, especially when there is not available a group well educated at the basic level ready for leadership training. However, the date for starting post-basic training programmes should follow soon after the first classes have completed basic training. In some countries such post-basic courses may be limited at first in length and in depth, but the effort should be made to give essential elements of supervision and administration to selected individuals who are or will be assigned to positions of responsibility. In some countries it will be possible later to establish post-basic schools for the continued provision of fully qualified supervisors and administrators. Similarly, in most countries, short training programmes in the elements of teaching could be provided at the post-basic level. Fully qualified teachers may need to be trained abroad, preferably in countries with comparable needs. Attention is being given to the development of regional centres where leaders from a group of countries can be prepared. If students in the basic schools are being prepared to direct care given by auxiliary personnel, auxiliary nurses with suitable pre-service training should be ready for employment at about the same time as are the graduates of the new or reorganized basic schools.

Whatever the schedule for starting formal education at the basic, post-basic and auxiliary levels, in-service training for existing personnel cannot start too soon. In order to achieve a realistic scheme, planning for this should be based on a period of trial in a few representative agencies; for instance, a hospital, an out-patient service and a health

centre. If a basic school is being started, the clinical facilities to be used for the basic students would be a good choice. The immediate aim would be to help improve the nursing care. Secondary aims would be to strengthen the teaching of the basic students and to demonstrate a method of in-service training which could be applied in the implementing of the over-all plan.

It is necessary, in outlining the steps needed to put an over-all plan into operation, to investigate in some detail what problems are likely to be encountered in each phase. This may affect schedules. For example, the date for opening a basic school may have to be deferred until preparation of facilities and personnel can be completed. The clinical facilities may be so far from adequate that time will be needed to develop the services, upgrade the personnel, even introduce new concepts of nursing care. Schoolrooms may need to be constructed and equipped. Lack of qualified teaching and supervisory personnel may cause delay. One solution might be to wait for potential teachers and supervisors to be trained either in their own country or abroad. Another solution might be the employment of qualified teachers from abroad with whom local nurses would work until such time as they could be released for formal training. There is value in assigning nurses who are planning for foreign study to have experience under skilled supervision in the school situation or the nursing service situation to which they will return after their advanced study.

However carefully over-all plans are made, modifications will, of course, be inevitable. A decision based on careful analysis may have been made to train women as well as men in a country where men have been the only nurses. Prejudice might be found to be so strongly against this as to require a postponing of this phase till a later date. Recruitment may not be as effective as was anticipated when the school was scheduled to admit, for example, 20 students a year. The question as to whether to lower admission standards in order to fill the class to the estimated quota will arise. Reference to the over-all plan may help towards a wise decision. If nurses must be able to provide highly skilled nursing, either themselves or by directing auxiliary nurses, then it becomes obvious that admission standards already set should be maintained.

The question may arise as to whether a planning committee which is specifically concerned with the development of an individual basic nursing school needs to undertake consideration of the over-all programme. Certainly a review of existing programmes is essential, and if the individual programme is recognized as meeting only part of the need, there should be simultaneous planning for the education of leaders, auxiliaries and existing nursing personnel.

## THE DETAILED PLAN FOR A BASIC SCHOOL OF NURSING

### *Administrative planning*

There is a logical sequence for administrative planning for a school of nursing.[1] Whether or not in a particular situation it is possible to observe this sequence, it is advisable for the planning committee to make a preliminary survey of the kinds of decisions needed and to identify some of the relationships of each phase to the others, before making any firm decisions. The sequence proposed is as follows:

(1) Decision to establish a school.

(2) Defining the objectives of the school of nursing.

(3) Decision as to size of the school. Since this will be dependent in part on availability of suitable applicants, it will be necessary to define qualifications and implications for recruitment, and to develop admission policies and methods.

(4) Preparation of a general plan of instruction which will realize the objectives. This will involve decisions as to the organization and extent of classwork and clinical experience and, based on these, the length of the programme.

(5) Defining the personnel needed to administer and operate the school. This will use data as to objectives, the size of the student body and the plan of instruction.

(6) Determining clinical facilities, laboratories, library, classrooms and office accommodation; and defining equipment essential for the work to be done. This will depend on the plan of instruction, the numbers of students, and the personnel.

(7) Defining the housing, recreation and health service facilities. Decisions will be related to the number of students, the philosophy of education, the objectives and plans for guidance of students in personal living.

(8) Estimating the operating costs, including maintenance, services and supplies.

(9) Assembling data for financing. All earlier phases in planning will contribute.

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[1] Adapted from Bixler, R. W. & Bixler, G. K. (1954) *Administration for nursing education in a period of transition*, New York, G. P. Putnam's Sons, p. 44

(10) Preparing a calendar for the multiple activities involved in preparing people, facilities, equipment and supplies for the opening of the school, and in enrolling students.

(11) Planning for evaluation.

*Decision to establish a school*

The decision to establish a school may have been made as a part of the over-all planning for nursing education. The school may be sponsored in one of several ways: it may be a government school with control in the national health or education authority; it may be an independent school; it may be under the jurisdiction of a hospital or an educational institution. There will need to be a board of directors or an advisory committee. If a board is appointed it will have administrative responsibility and will establish general policy and appoint a qualified nurse director. If the school is organized under a health department or a hospital, both of which are primarily responsible for service, the director will be appointed by the department or the hospital. In this case, it is important that an advisory committee should be developed to advise on administration and policy, and to help in developing liaison with other professional and lay groups and the public.

The composition of the board as well as of an advisory committee should approximate to the composition of the planning committee which has been described. It will carry on the planning functions which have been outlined.

*Defining the objectives of the school of nursing*

The design for the basic programme will be developed within the terms of the over-all plan. A general objective may have been worked out before responsibility is given to the board of directors, who will be charged with the operation of the programme, or before the appointment of an advisory committee. Whoever does it, certain guiding ideas are applicable.

Objectives for a particular school should be drawn up co-operatively with the help of personnel who will be responsible for developing courses and clinical experience, teaching, and evaluating the progress of students.

Objectives should be based on an interpretation of the nature of nursing and on a philosophy of education. There will be various beliefs as to what nursing is, and various attitudes towards it. These

must be identified and reconciled, and a working agreement must be reached as to the functions of nursing which will be recognized as a basis for planning and action. It is important that personnel responsible for nursing service take part in developing this agreement.

Varying views of the teaching process and the learner need to be reconciled. Some members of the group may believe that teaching consists in exposition and that learning consists in memorizing and reporting back in recitation and in examinations. Others may feel that learning consists in the achievement of ability to select and apply knowledge and skills to the needs of specific situations. Some may believe that all students may be moulded to a pattern, and others that, since people differ, each has a potential contribution which is unique and which can be developed. Some way of reconciling these different beliefs and feelings should be sought and a working agreement achieved to provide a basis for consistency in purpose and consequently in methods.

Such an agreement will be helpful in smoothing the way for later decisions. For instance, in connexion with acceptance of an educational philosophy and principles of teaching consistent with it, a clear understanding can be reached at this point of how fully the educational needs of the students will be the basis for their clinical assignments. Whenever students take care of patients there is a contribution to nursing service, but the selection of that experience and the choice of hours when that experience is to be gained should be determined by the educational need of the student and not by the staffing needs of the agency. This is not to say that the planning group has no responsibility for facing the facts as to nursing service problems. Education planners have an obligation to work with those responsible for nursing service in devising ways of patient care which will free them from dependence on the service provided by students. In accepting this obligation the faculty of one school took leadership in providing in-service training for nursing service staff and for the development of a school for auxiliary nursing personnel.

Objectives should be developed in terms of the needs identified in the fact-finding process. An approach to identifying objectives would be to ask what kind of a person will meet these needs. In what kinds of services will she function? In what clinical areas should she be prepared? What level of nursing skills and abilities should she have? What health teaching responsibilities should she be equipped to carry? To what degree should she be prepared to think critically and to use judgement in the defining and solving of nursing problems? What kind of professional and community leadership will she be expected to take? What kind of a person should she be?

Not only must objectives relate to needs but they must be realistically based on the background of the students who are available for recruitment. Only by knowing the starting point can teaching be devised which will carry students to the point of readiness for service as a nurse.

*The general objective or purpose*

The general objective or purpose for the school then will identify the type of person to be educated, the kinds and levels of responsibility for which she is to be prepared, and the kind of person she needs to become personally and professionally to meet this responsibility. An example of such a general objective might be:

> To select applicants well qualified for the nursing profession; to prepare them to give comprehensive nursing care (preventive, curative and rehabilitative) in hospitals, clinics, health centres, schools and homes, and to plan and supervise care given by less well-qualified nursing workers; and to assist them in their personal and professional development so that they may make their maximum contribution to society as individuals, citizens and nurses.

There may be some danger of too theoretical an approach in describing the person who is needed. Caution is contained in the following statement:

> " No professional school can expect to turn out a ' finished ' product because expert skill and mature knowledge and judgement can be achieved only after long professional experience. All that any school can hope to do is to send out into the community graduates who have acquired sufficient skill, knowledge and judgement to practise safely and with a fair degree of independence." [1]

*Specific or contributory objectives*

Specific objectives should define in greater detail the purposes on which the curriculum will be based.[2] They will make provision for putting into effect the general objective. They will be the framework within which learning activities, including practice and classwork, will be chosen, methods of teaching will be selected, schedules will be planned, and evaluation of student achievement will be carried out. The objectives should be clearly stated and brief enough to be kept in mind. They should be consistent with each other and with

[1] International Council of Nurses, Committee on Education (1952) *The basic education of the professional nurse*, London, p. 42

[2] The term curriculum is used here to include all the learning which is planned and guided by the school, arrangements for living as well as the educational programme which itself will include classwork and clinical experience.

the general purpose of the school. They should be realistic and attainable.

One way to state objectives is to express them in terms of the knowledge, skills and attitudes which the nurse will need. Literary style (which has frustrated many in their attempts to put objectives into writing) is important only to the degree that it helps the planning group, and those who will use the objectives to reach an understanding of what they want the educational programme to accomplish.

In the following example of contributory objectives which would be consistent with the general objective stated above, emphasis is mainly on skills and attitudes, but the knowledge needed is implicit and can be deduced from a study of the skills.

(1) To develop a professionally and technically competent practitioner of nursing with skill in:

(*a*) applying her knowledge of the physical, biological and social sciences to the practice of nursing;

(*b*) observing, interpreting and reporting;

(*c*) using manual, psychological and managerial techniques in providing personal and supportive nursing care and in assisting with diagnostic and therapeutic measures;

(*d*) communicating effectively with patients, families and co-workers;

(*e*) selecting and using pertinent teaching principles and methods in her teaching of individuals and groups.

(2) To develop a nurse who is able to plan and organize her own work and to plan and supervise the work of auxiliary nursing personnel.

(3) To develop a nurse who fortifies her interest in people with an understanding of human behaviour and who has skill in personal relationships.

(4) To assist the nurse in achieving maturity, independent thought and action, and in accepting responsibility as an individual, a nurse, and a citizen.

(5) To develop a nurse who recognizes her need for continuing education and to provide her with the basic education upon which advanced training can be built.

If fully used, objectives will serve as a double check. All aspects of the teaching will be referable to one or more of the objectives; and all aspects of the objectives will find expression in some phase

of the teaching. Furthermore, the objectives will be the basis for selection of evaluation methods.

The test of the effectiveness of a statement of objectives will come only in its use. As soon as the people who are responsible for the programme of the school produce a working statement which can be accepted as a basis for planning, attention should be turned to the kind of educational programme within which these objectives can most effectively be realized, and to the personnel and facilities needed.

At a later time when the general outlines of the programme have been traced, the objectives will be a source of constant guidance to the personnel who are developing the details of classwork and clinical experience.

*Decision as to the size of the school: enrolment*

In deciding as to enrolment, primary considerations will be the need for nurses, together with possibility for employment on the one hand and the availability of suitable applicants on the other. There will be other determinants in the particular situation. Government regulations may stipulate the relation of enrolment to available clinical facilities, to numbers of teaching personnel, etc. Local determinants may be available budget, variety and extent of clinical facilities, housing accommodation, etc. A listing of these factors illustrates the need for a preliminary survey as suggested above before the making of firm decisions.

To consider availability of applicants, a definition of admission qualifications is needed: age, sex, general education, health and personal qualifications. The experience of schools in other countries and cultures in defining qualifications will be helpful, but such qualifications should not be accepted without considering their appropriateness.

*Age*: the aim is to set the minimum at a time when most young people have completed the general schooling needed for the teaching level of the particular programme, and have attained a degree of maturity which will ensure their being reasonably self-directing as students. The objectives described above would require the applicant to have had 11 or 12 years of general education. If a school of this level is to be established in a country where the usual school-leaving age is 15 or 16 after eight or nine years of education, special means to prepare applicants may be necessary. In some countries, pre-nursing programmes have been offered to supplement general educa-

tion and to give content specifically preparing for the nursing course; for example, mathematics, science, home nursing, child care, homemaking, etc. Such courses have a dual purpose: to hold applicants until they have the needed maturity, and to provide a technical preparation on which nursing education will be based. In other situations where there is an early school-leaving age, the applicants are hired as hospital aides for the intervening time. The rationale is to give them an idea of nursing and to provide a basis for selection. In this latter situation, the applicant would not be prepared for the higher level of training and such a device would be related only to the need for maturity. If pre-nursing courses are developed, they need to be planned jointly by educators in the school system and nursing educators. The emphasis should be on strengthening general education rather than on specifically pre-nursing instruction. Mathematics and science not otherwise available might be included, and language needed for use in the professional school could be offered. The suggestion also is made that holding applicants by employing them as aides is not as good a method as helping them acquire general education which will fit them for nursing education on a higher level. Factors outside the control of the school have a bearing on the age requirement; for instance, the legal age at which a graduate may be licensed. It is desirable that there be no appreciable delay after graduation in becoming licensed. Another factor which must be considered is the usual school-leaving age. It is useful to make admission to the school possible at this point in order to compete for good students on an equal basis with employers and other types of schools. Thus, a school which might prefer to admit students at 19 on the basis of maturity would consider lowering the age to 17 or 18 if most young people were leaving school at that age. The age when young people take on adult responsibility in the particular culture must also be considered. Chronological age must be recognized as an index, not as in itself a qualification. It is convenient to use as an index if there is provision for making exceptions in the case of individuals who are in other respects essentially ready for the programme of study. An upper age limit is sometimes set. The major consideration here is that the applicant be able to function satisfactorily with younger students and show potential for making a contribution to nursing.

*Sex*: The decision as to whether the student body will comprise men or women or both will depend to a large extent on the cultural and educational patterns of the community. There may be cultural restrictions on the practice of nursing by women, or by men. In

countries where general education is limited and where boys are more apt than girls to be sent to school, applicants with sufficient education may be limited to the male sex. If the nursing programme is designed to prepare nurses for work in isolated communities and the culture does not permit women to live away from the family or to go about freely in the community, it may be necessary to prepare men. In one situation both men and women were prepared in the same school and village public health nursing stations were designed to be operated by man and wife, both nurses. Innovations in the established pattern need to be made with care.

*Education requirements*: These will of necessity have to be attainable within the educational system of the country. In a situation in which a very small minority of children go to school for more than three or four years, preparation for a professional-level school of nursing may be unattainable. In the fact-finding period, such a situation would have become apparent and the type of programme planned would have quite a different level and purpose from that of the example given. For schools preparing fully-qualified nurses, however, educational standards should not be less than those set for admission to teaching-training institutions. Specific content requirements have been made in many countries, for instance in physical sciences. If these are not offered in the schools, they cannot be stipulated, and students' needs in these fields may have to be met within the teaching programme of the school of nursing.

In many situations the language of the nursing school will not be the mother tongue of the students. There may be an opportunity for the students to study it in secondary school. It may be possible for education authorities to provide instruction in the language for potential applicants. It is also possible that language instruction will need to be given throughout the nursing education programme, especially if students' initial competence is limited.

Requirements as to level of performance in schools previously attended are difficult to apply both because of variation in evaluation and grading systems, and because of variation in schools. The rank of the applicant in her class is a better index of ability than grades or marks. In countries where educational opportunities and standards are undergoing rapid change, the committee will need to anticipate continual assessment and adjustment of educational admission requirements. There may be apprehension when a newly organized programme sets standards higher than those previously required. Experience has shown that the programme with higher standards will ultimately and perhaps very soon attract an even larger number of well-qualified students.

*Health*: To be admitted, an applicant should be able to present a health history and a report of a thorough health examination which indicate the probability of her meeting the stresses of her programme without hazard to others or to herself. It is important that any indication of emotional instability be investigated, especially if entering the field of nursing represents a marked departure from the customs of the applicant's social group or family. For this the school should have access to a psychiatrist who can contribute to the appraisal. There cannot be one health standard for all countries and climates. The health appraisal should take into account the special health hazards of the community. For example, in countries where intestinal parasitism is prevalent, applicants who are found to need treatment may not be refused admission, but will be scheduled for treatment at an early date.

*Personal qualifications*: These, other than health, should include such factors as social maturity consistent with the age and the culture of the applicant, evidence of good character, and some indication of a personal sense of responsibility and of a sincere interest in people and in nursing.

When agreement as to admissions qualifications has been reached, an investigation into the number of applicants potentially available will make possible a decision as to the desired enrolment. At this stage a statement of admissions policies and a definition of the admissions process can be drafted. Responsibility for carrying out the policy should be delegated in writing. An admissions committee is recommended as more effective than a single admissions officer. Such a committee might include the director of the school, one or two teachers, a representative of the school board or advisory committee, a representative of the government authority, a physician, and an educator. While it is important to safeguard the influence of the teaching staff, it is also valuable to have the help of others in this process. In countries where all school admissions are determined by an official at a high level of government, the admissions committee may have authority to recommend but not to take action. It would be desirable for such an officer to delegate authority to the committee to act for him. There are situations in which admissions committees have responsibility also for decisions as to promotions, dismissals and graduations.

*Selection techniques*: These should aim at obtaining objective evidence of the potential student's aptitude for nursing. Good selection is important in minimizing future withdrawals from the school.

Withdrawals are costly to the school and detrimental to its reputation and are traumatizing to the student. There should be evidence that the student will be able to undertake the course of study implied in the school objectives with a good chance of success and with satisfaction. The graduate visualized is a person with self-confidence based on a satisfying student experience.

A definition of the admissions process will include the preparation of necessary forms and adoption of a policy as to references and interviews.

In selecting information which application forms are to provide, three uses of this information should be kept in mind: determining the suitability of the applicant for admission; guiding the student during her time in the school; and evaluation by the school of its programme. For example, comparison of successive classes as to educational achievement in previous schools may alert the school of nursing to the need for changes in programme. Analysis of place of origin of students can be helpful in recruitment planning. Correlation between entrance test records and school of nursing performance can be helpful in assessing appropriateness of entrance requirements.

Forms usually include a general application, health reports, and a school achievement record. This last may be developed by the school of nursing or it may originate in the secondary school. The application form will give identifying data: name, address, age, parents, schooling, work experience, etc., and names of persons for reference. The applicant may be asked to prepare a short essay about herself, her interests and her reasons for studying nursing.

A health examination form with an outline of data to be provided by a physician and a dental report form will become a part of the student's on-going health record. Some schools also arrange for a health examination soon after admission.

School data may be requested directly from the school attended, and should include dates of attendance, studies completed, grades, rank in class, and the principal's evaluation of the applicant as a candidate for nursing.

Letters of reference may be requested from persons listed on the student's application.

The student may be required by law to pass certain examinations. A record of her standing will have to be submitted. The school itself may set up examinations in specific subjects or a general examination. In one country an examination given to applicants for a post-basic programme was called "a test in common sense".

Psychological and general aptitude tests may be helpful if they have been developed in the country by scholars of the country and

have had sufficient use to demonstrate their value. The educator on the committee will be able to advise on this point.

Personal interviews by committee members with the student and with her parents are valuable both to the family and to the school. A record of interviews will be needed, and can be conveniently kept with the help of an outline form.

Planning for recruitment can be considered in connexion with the development of admissions procedures. The attraction of young people into nursing is affected by cultural patterns and to a large extent by what people generally know about the nursing field. Feelings about illness, about work which involves manual skills and close personal contact with persons of both sexes, and the degree to which girls are protected or allowed independence will affect recruitment. Attitudes of the public will be influential in encouraging or deterring potential applicants. These will be based on the reputation of nurses in the community, the quality of nursing service, the respect which physicians show for nurses and nursing, and the reputation of the schools of nursing. A school is judged by the reputation of its graduates and by many details related to its operation; the programme of study, the quality of its teachers, the way students are treated, the withdrawal rate, the school facilities, the image of students which patients have, the housing and living conditions. The status given to nursing, as reflected in the opportunities for employment, will influence applicants. Young people will be attracted when they know that working conditions are acceptable, when individual interests are considered in placement, and when there are opportunities for advancement and incentive for continuing education. Opportunities in nursing, as well as the financial rewards, will be compared with those in other fields. There is evidence that an opportunity for service is a strong incentive for keeping nurses in the field if other aspects of employment are reasonable and comparable with those of other vocations.

If influential members of the community have been actively involved in the planning, they become excellent public relations people. In many countries, it is parents, rather than their sons and daughters, who have to be convinced of the values of a nursing education, of the respectability of nursing, and of the career opportunities which it offers. Members of a nursing advisory committee are usually parents themselves, and have influence with the fathers and mothers of prospective nursing students. Teachers in secondary schools also need to be well informed of the new programme and aware of the opportunities it offers. Perhaps the most effective recruiting agents are students or young graduate nurses who are finding real satisfaction in their work.

Recruitment methods are well known: radio, television, press, films, brochures, posters, visits to secondary schools and to adult groups, " open house " days at hospitals, nursing schools, and health agencies, and future nurses' clubs. Perhaps the most effective method is personal contact with potential students, their families and other interested adults. A variety of methods should be used, and they should be adapted to the interests of the groups they are designed to reach. Not only should the general public be reached but persons who hold positions of high esteem in the eyes of the community should know the aims of the school and be aware of its progress.

*Preparation of a general plan of instruction*

Theoretically it would be possible to examine the skills a nurse needs and to estimate what knowledge and what practice will give her those skills; then to organize and schedule the teaching in such a way that appropriate attitudes and feelings needed in performing the skills will become a part of her identity as a nurse. This would produce a plan for instruction of the required duration.

In practice, many of the decisions entering into this process are likely to have been made, whether a new programme or a reorganized programme is under consideration. Government regulations may stipulate subjects to be taught and clinical experience to be provided. In some situations, course syllabuses may be prescribed, and numbers of weeks of clinical practice in specified hospital units may be stipulated. Also, tradition is strong and the nursing personnel involved in planning have acquired opinions as to what is needed and how much. Furthermore, the practices in nursing education have been described in the literature, and the influence of the written word will affect decisions.

These determining factors can be helpful in some respects, and in others frustrating. Two suggestions are offered. If the planners will visit practising nurses in the places where they work and watch what happens all day long in a hospital ward, an out-patient clinic, a health centre and with a public health nurse in the homes of the people, a picture of the nurse to be trained and the conditions under which she will have to work will be gained. Also, if the objectives are kept at hand, and proposals for classwork and practice constantly weighed against the objectives, it will be possible to work within regulations, to select from experience, and to benefit from written advice, and still devise a programme suited to the country.

It is useful to develop a chart on which all classwork and clinical experience can be noted (see Fig. 1, page 55). Perhaps several charts showing different time spans might be needed at this stage.

The length of the programme and of the vacation allowed may be set by law. The committee may wish after study to request freedom to experiment with time allowance. For example, if it is found necessary to give general education including language instruction as a preliminary to professional study, a longer course will be needed; or if it is felt by the planning group that the climate is unsuitable for the type of programme projected, it may be proposed to establish a nine- or ten-month calendar instead of the twelve-month calendar prescribed in the regulations and if necessary extend the total programme to a four-year span. One advantage of a shorter teaching year, aside from its benefit to the students and to teaching effectiveness, would be the provision of time for teaching personnel to keep up with their own study and to develop and improve the programme.

Another factor may affect the length of programme—the availability of nursing literature in the language of the country. If all study must be done in a language other than the student's mother tongue, and if students can be expected to learn relatively little from reference reading, the number of class hours will have to be increased and mastery of content will take longer.

In addition to vacation, certain other important holidays must be envisaged. Reference to the practices in other schools of the country will be helpful. In one country where Christmas is celebrated at three different times, students were permitted a choice of which days to observe and classes were suspended for all three. In Moslem countries, the programme may have to be adjusted to the observance of Ramadan, while elsewhere New Year's celebrations may be of importance.

A policy as to weekly and daily schedules is needed before details of teaching are planned. The climate, the culture, and educational methods to which students are accustomed will need to be considered. The time needed for class preparation should be estimated and allowance for it should be incorporated in the plan. This does not necessarily mean supervised study, though in some situations or in early stages it might be useful. In the struggle for reasonable working conditions for nurses, the 40-hour or 48-hour week has often been sought. This has sometimes been applied to the student nurse, giving her perhaps 10 hours of class and 38 hours of practice without thought as to time for preparation. A more reasonable pattern would be to provide 1½ hours of preparation for each hour of class. This would require allotting 25 hours for class and preparation instead of 10, and 15-23 hours of clinical practice in a 40- to 48-hour week. To make an over-all plan would require first an estimate of total class hour needs for the whole programme, and then an equitable distribution during the three or four years so that a reasonable classwork and clinical

experience load will be maintained continuously. This might provide somewhat more classes early in the programme, with a gradual diminution towards the end. The practice of crowding most of the classwork into the first year is educationally unsound, since it prevents correlation between classwork and clinical experience. The ratio of preparation time to class-hour time may also depend on the availability of reference materials and the extent to which students will be able to carry on study of content which supplements that given in class. When most of the content must be given in class, relatively less time, perhaps one hour for each class hour, could be assigned for preparation.

A sample form used in one situation to show the relationship between class-room teaching and clinical experience is shown in Fig. 1.

FIG. 1. A SAMPLE FORM TO SHOW THE RELATIONSHIP BETWEEN CLASSROOM TEACHING AND CLINICAL EXPERIENCE

(Based on four 6-week periods of practice in second half of first year and four 12-week periods of practice in second and third years)

| | | First year | | | | | Second year | | | | Third year | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Classroom teaching | Professional | Basic subjects | Subjects necessary for second-year clinical experience | | | | Subjects necessary for third-year clinical experience | | | | Subjects preparing for graduate status | | | |
| | Cultural | Music, language etc. | | | | | | | | | | | | |
| Hours per week | 1 | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | |
| Clinical experience | A | | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
| | B | | | | | | VI | V | VIII | VII | | | | |
| | C | | | | | | VII | VIII | V | VI | | | | |
| | D | | | | | | VIII | VII | VI | V | | | | |

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A, B, C, D: class sections 1: class hours 2: clinical experience hours

I-XII refer to specific clinical experiences; second-year rotation plan indicated

Four 6-week experiences in the second half of first year and eight 12-week experiences in the second and third years can be designated by numerals which provide a code for the rotation plan. A guide describes each experience. For example, in the second year, experiences V, VI, VII, VIII may refer to: V—medical nursing, VI—surgical nursing, VII—medical specialities, etc. Class sections rotate to each in turn. General classwork will be provided for all sections together; specific classwork related to actual experience will be repeated for each section.

Use of such a form will encourage consideration of classwork and practice as one process.

It is useful first to outline placement of clinical experience in the successive years, and then to schedule the classwork to correspond. In the situation in which this form was used, it was impossible to repeat classwork for each of the four sections of students; therefore half of the classwork to be needed in the second year was given in the second half of the first year, the remainder was given while students were beginning their related clinical experiences, and similarly for the third year. Such a plan will be feasible if teaching personnel are assigned in the clinical areas, and if a planned ward teaching schedule is repeated for each section of the class.

It will be noted that the rotation plan provides for groups of students to start and finish assignments together. If a planned sequence of ward classes and conferences in medical nursing, for instance, is a part of the medical nursing course, this is the most effective way to schedule. Ward teachers cannot provide such teaching as effectively if students begin and end their experience at different times. Such a plan is based on the premise that clinical assignments are made according to educational need. Such a scheduling system also provides in a 48-week year for an even number of students in each teaching area continuously. It distributes responsibility of the clinical teachers evenly and it permits nursing service administrators, whether in hospital or in health centres or elsewhere, to plan staffing with the minimum of ajustments to teaching schedules.

There is no magic in designing the rotation in 12-week periods. Ten weeks or 15 weeks or some other span could be used. It is necessary, however, for the total number of weeks to be a multiple of the number of sections—for instance, in a 48-week year, four sections for 12 weeks; three sections, 16 weeks; six sections, eight weeks. For a 40-week year, other spans could be used—for instance four sections, 10 weeks. Each span can be used for experiences related to one clinical area, for example, maternity nursing, medical nursing, etc. An example will be given later (see page 63).

The placement of classwork and experience needs to follow a logical sequence and to observe certain principles of planning. One principle to be followed is that of correlation which is applied to the relationship between classwork and practice. The use of a planning chart is helpful in working out details. There needs also to be correlation between classes taught simultaneously. For example, in the first term (or half-year) related material from several courses may be taught simultaneously:

| | |
|---|---|
| Nursing fundamentals | Feeding of patients<br>Nursing measures related to diagnosis and therapy of patients with gastro-intestinal symptoms |
| Anatomy and physiology | Structure and function of gastro-intestinal tract |
| Microbiology | Bacteriological and parasitic invasion via gastro-intestinal tract<br>Tests for detecting infection and infestation |
| Nutrition | Food elements and their digestion and absorption<br>Selection of foods in case of gastro-intestinal malfunction |
| Hygiene | Why people eat certain foods<br>Safe food for the individual and family<br>Disposal of waste |

Another planning principle is that of sequence. Content essential for understanding new learning must be provided in earlier learning, and when new aspects of material given earlier are introduced they should provide deeper understanding. A planning chart helps to apply this principle. For instance, in the column for basic subjects will be listed courses which are essential for all later courses. Furthermore, subject matter within those courses can be chosen specifically to prepare the student for the applications which will be made in later courses. Personal health may be taught in the first term. Provision of safe surroundings can be further applied in the teaching of communicable disease nursing in the second year. Home hygiene may be developed as students study maternal and child care. How the community is protected will be presented in public health administration, perhaps given in the final year.

Reference to the objectives will suggest other ways in which sequence can be observed. The nurse must be able to teach groups and individuals. In the first term she may study psychology and apply the laws of learning to herself. In nursing fundamentals she will learn how to talk to people and how to listen to them. In the second-year clinical period she will begin to get skill in observation of what the patient knows of his condition and what he needs to know and how to help him learn. By the third year she may be introduced to a study of teaching methods, using both classwork and practice, which will bring together her own learning experiences and her own experience in helping patients to learn.

Similarly, if the total programme is visualized, other phases of learning can be planned as a continuous process: for example, nutrition, understanding of people and personal relations, communication skills, prevention, rehabilitation, elements of administration.

The aim of such over-all planning is to enable the student to integrate knowledge she has gained through a variety of courses

and experiences, and to apply it in her planning and provision of care in any given situation.

The general plan of instruction will require analysis of available clinical experience and decision as to what facilities will be used and what further facilities must be developed. It will also be a basis for estimating need for personnel. It will further provide a framework within which specific courses and related experience can be designed. It will help in defining responsibilities of personnel, and in making arrangements for channels of communication. Planning for an individual clinical course made possible by these channels will be discussed later as a function of teaching personnel.

A second approach to developing a general plan of instruction would be to list the courses which are defined in the regulations or selected by the planning group, choose a sequence, and then develop a rotation plan for clinical experience which will ensure correlation between classwork and clinical practice. Subjects for courses can be classified in a variety of ways. For instance:

Physical and biological sciences

Social sciences

Nursing (including appropriate content from medicine and public health)

| | |
|---|---|
| Fundamentals of nursing and their application in: | medical and surgical nursing, including communicable desease nursing<br>maternal and child nursing<br>mental health and psychiatric nursing<br>public health nursing |
| The evolution of nursing and current developments: | nursing organization and the role of the individual practitioner<br>nursing and its role in the health services |

Health—personal, family, community and national

General education—related to cultural, social and personal development of the student (e.g. language, literature, music; current national and international trends, etc,)

Another classification might be on the basis of chronological placement in the programme:

Basic subjects:

- Physical and biological science including sciences applied to health, nutrition, growth and development, pharmacology, etc.
- Social science, appropriate to first year, i.e., elements of sociology
- Nursing fundamentals

Nursing subjects and related courses:

- Medical-surgical nursing
- Maternal and child nursing, including well-child and paediatric nursing

Psychiatric nursing
Social science—continuing work given earlier
Educational psychology, elements of teaching
Health—continuing personal hygiene and considering public health services (this must be correlated with teaching in all clinical areas)

Subjects preparatory for graduate status:
Nursing trends and status, nursing organization
Advanced instruction and practice in teaching method, elements of nursing service administration, etc.

In using a subject list as a basis, it should be recognized that content traditionally included under each subject ought to be closely compared with content implied in the objectives. Also, if the principle of sequence is applied, content formerly organized into a "course" may be more effectively taught if distributed in the teaching of clinical nursing at successive stages in the programme. For instance, basic nutrition can be introduced early, but applications are best taught when students are caring for patients with particular nutritional needs.

*Defining the personnel needed to administer and operate the school*

Preparatory to appointment of personnel, position descriptions are needed for each category of school staff and personnel policies for all categories. Such descriptions and policies may already be established. The individual school may wish to supplement established statements or may need to develop them. Position descriptions should include:

Title

Functions (this statement may in addition list activities related to the functions)

Responsibility and authority (this statement should also indicate relationships, to whom responsible and for what other personnel responsible, channels for communication with other departments and individuals)

Place of work

Qualifications for the position:
General education; professional education; experience; other

Terms of employment: data will be taken from personnel policies as applied to this category

Statements of personnel policy should include:

Terms of appointment and procedure for terminating appointment
Salary and supplementary allowances: living stipend if any, retirement, insurance, eahlth service, etc.

Period of appointment, also vacation, holidays and leave of absence policies (for personal, professional and health reasons)
Promotion provisions; increments and basis for promotion

*Personnel*

The director of the school should be a nurse with administrative ability and with a philosophy of education in keeping with the purpose of the school. She should have had experience and special preparation in nursing education. The position description for the director should make relationships explicit. It is important that channels of communication with directors of nursing service in the health agencies used, and with directors of other agencies, should be clear; also with departments from whom teaching personnel may be recruited—or with individuals; for instance, private physicians who may be needed to contribute to teaching. Her access to the advisory committee and its members or the board of directors (if existing) should be assured. The director should also have direct contact with nursing officials in the local or national health authority under which the school operates. Her responsibilities should include the selection of staff and termination of staff appointments or responsibility for recommending on these points. She should take the lead in developing the programme and in recommending the necessary budget. She should have *ex officio* membership on all school committees; for example, admissions and promotions and graduation, health and student services, curriculum, etc. It is important that the school director have insight into the problems of nursing service, and that she have the potential for developing a close working relationship with the nursing service administrators in the clinical agencies used for teaching.

In defining qualifications for nurse teachers the planning committee should be explicit on the preparation and experience required even when it is not possible to recruit teachers who are fully prepared. Planning should provide for finding nurses who have high potential and helping them to complete the necessary preparation as rapidly as possible. Interim employment should be clearly understood by the nurses employed as being dependent on their completing their preparation in a reasonable period, or on the availability of applicants with that preparation. All too often in nursing education, as in other fields, it has been assumed that a skilful practitioner will be a good teacher—whereas the additional qualities required are depth of knowledge in her clinical speciality, a broad general education beyond that of her students, and training in educational psychology and in teaching methods. She should also have the personal qualities

essential for teachers in any field; an interest in students, an inquiring mind, and the ability to communicate ideas and to inspire in others a respect for learning and the spirit of inquiry.

In countries where few nurses have had the opportunity to acquire experience or advanced preparation in teaching, it has proved valuable to select those with good potentialities for teaching, and to assign them to work in a teaching situation with a more experienced nurse instructor. A schedule of leaves of absence for advanced study should be set up at the time of their employment, so that each is able to become fully qualified within a reasonable period of time. This plan has the advantages of getting the basic programme started, selecting candidates for advanced preparation on the basis of demonstrated interest and ability, and increasing the readiness of the young instructor to get the most from her experience and advanced study. However, its success depends on the availability of qualified experienced nurse teachers to take leadership during the early years of the programme. Another approach to the staffing problem is to delay plans for opening a school until a group of experienced nurses have completed advanced study and can themselves take initiative in the planning and development of the educational programme.

No one ratio of nurse instructors to students can be applied in all situations. In addition to the nurse director who may carry limited teaching responsibilities, there should be a minimum of one instructor for introductory courses in nursing, and one to co-ordinate the teaching of basic sciences, one instructor in each of the clinical areas of study, and additional instructors as indicated by the size of the student body. Economics and the scarcity of qualified instructors may make this goal unattainable in the immediate future. One nurse may effectively carry responsibility for teaching in more than one clinical area if specialists are available in each field and if there are suitable nursing service personnel who can supplement her teaching. Clinical teaching and supervision of the students' clinical practice is most effective when it is shared by nurses who are close to the clinical situation. In many schools, selected head nurses (ward sisters) are appointed as regular members of the teaching staff, are active on curriculum committees, etc. The extent to which they can carry responsibility for clinical teaching and supervision will depend on their interest in and preparation for teaching, their orientation to the objectives and programme of the school, and the possibility of delegating some of their service responsibilities so that they have time for the student programme.

In addition to physicians, whose contribution to nursing education is of long tradition and accepted, other part-time instructors may

be recruited among general educators, scientists, sociologists, psychologists, social workers, laboratory personnel, nutritionists, pharmacists, etc. It is helpful to call regular meetings of all who teach to consider the programme as a whole, evaluate progress and advise. It is essential that all part-time instructors have an orientation to the total programme of the school and that their special field be clearly defined. A nursing instructor may be assigned to plan with each of them so that their contribution will have application to nursing and will be an integral part of the whole. Part-time instructors should receive formal written appointments to the teaching staff of the school, and they should be paid an established fee.

Teachers need assistance in relating their individual assignments to the school objectives and in planning for classwork and clinical assignments. If senior instructors can share in the making of the general plan of instruction they in turn can share what has been done with junior instructors. Their task will be to design clinical courses so that classwork and related clinical practice will be a part of one plan. This will be best done if all who share in the teaching of the "course" have a share in the planning. For example, the general plan of instruction may provide for a 12-week clinical experience in paediatric nursing as a part of maternal and child nursing experience. It may have been agreed that the student needs to understand and be able to care for the well child as a family member, the sick child and the handicapped child. Experience which would contribute to this skill and understanding would be working with children in nursery school or on playgrounds; contact with children and their parents in health centres, out-patient departments, and in the home; care in the hospital, of sick children having a variety of illnesses and under different kinds of therapy, and also of children requiring long-term care.

Persons involved would be the maternal and child nursing teachers, the nurse responsible for clinical instruction in paediatric nursing, the head nurses in the paediatric wards, the nurse in charge of the paediatric out-patient clinic, the health centre nurse assigned to work with students, the nursery-school teacher, etc. If this group were to prepare a statement of objectives for the course on paediatric nursing consistent with the school objectives, they could list the knowledge of paediatric nursing which the student should have at the end of the 12 weeks, the skills she should gain in her contacts with well children, sick children, and children's families, and the feelings about children and their needs which will help her in giving care. On this basis they could then decide what classwork in the classroom and on the wards will be needed, what assignments to care

of children will be needed, what technical skills particularly relating to children will be gained in hospital, in out-patient clinics, in the nursery or at the playground. Then a schedule of assignments within the 12 weeks could be planned. Supposing each section of the class has 16 students, they could be assigned as shown in Fig. 2.

FIG. 2. SAMPLE SCHEDULE OF ASSIGNMENTS

| | Weeks | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Students | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 4 | Children's wards | | | | | | Day nursery | | Out-patient department | | Health centre and community | |
| 4 | Children's wards | | | | | | Health centre and community | | Day nursery | | Out-patient department | |
| 4 | Health centre and community | | Day nursery | | Out-patient department | | Children's wards | | | | | |
| 4 | Day nursery | | Out-patient department | | Health centre and community | | Children's wards | | | | | |

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Each section of four students is assigned in turn to all the experiences in the 12-week span.

This example is given to indicate a method of planning, not to recommend a specific time allotment. Instead of using two-week periods, experiences in nurseries, out-patient clinics, health centres, etc., may be scheduled concurrently for each group of students with certain days or half-days assigned as convenient. The work schedules within the agencies and the accommodation for students will be factors in the planning. Repeated contact with the same children is desirable.

Scheduling of instruction can then be fitted into the rotation. General introduction needed for all the experience can be given in scheduled classwork before the paediatric experience begins and continued as it proceeds (see Fig. 1, page 55). "Ward" classes can be provided for all 16 students throughout the 12 weeks, perhaps in one or two sessions a week, and the experience all students are getting can be used in the teaching of ward classes. Individual instruction in each area will be scheduled by the nurse in the area, for instance orientation to the unit, and instruction related to direct care of individual patients.

The teachers involved are then ready to choose evaluation techniques for measuring the progress of the students in terms of their objectives and to fit tests, etc., into the time plan. Knowledge can be measured by tests, written and oral, by patient-care studies, and by performance in nursing-care conferences. Skills can be observed, compared with the skills which the student brought to the experience, and also with the skills of classmates. Changing attitudes are much more difficult to detect, but if the responsible nurses are alert to the ways in which attitudes are expressed this is possible; it might be a subject for in-service education.

Sometimes a guide is developed for the use of the clinical teachers. For instance, the skill of teaching may be observed with the help of a series of questions about the student:

Does she observe the patient?

Does she find out what the patient knows about his own care?

Does she make a plan with the help of her teachers and books for helping the patient to learn what he needs to know?

Does she choose a good time for discussing it with the patient?

Does she choose suitable words? or pictures? or posters?

Does she check later to find out if the patient has understood?

Grading of the evaluation is difficult. The system in common use in the country will undoubtedly be employed. Percentage of perfection is a frequent method, especially in written work, but is sound only if the tests are completely objective. Grading by scores is also used. Again such a method when there is an element of subjectivity is not completely satisfactory. Classifying the students into three or four or five groups is probably the fairest method, and can be done if tests are carefully constructed and if standards for written work are agreed on before assignments are given. In evaluation of clinical practice, classifying students in three, or even four, groups is probably the soundest method. The use made of evaluation is more significant than any mark set on paper. If teacher and student can together review the experience, identify strengths and weaknesses, and plan for new efforts to maintain the strengths and correct the weaknesses, the evaluation can be said to contribute to the teaching.

It is obvious that the kind of planning, instruction and evaluation described here requires a well-prepared staff, large enough and free enough to give time to each other and to spend time with the individual student. Even a small staff, however, by adopting the way of thinking behind these methods, can achieve good teaching.

In some situations, virtually all teaching in the clinical areas must be done by nursing service personnel. The problem then is a joint one for the nursing school administrator and the nursing service

administrator. Their chief tool will be in-service education for both staffs and the creation of channels for instructors and the nursing service personnel to work together in planning, implementing and evaluating clinical experience.

Other personnel essential to the operation of the school will be concerned with business operation, clerical services and student services: direction and care of residence, supervision of students in their living, social and recreational activities, student health and counselling. A trained business officer is needed who can be assigned for sufficient time to maintain orderly management of funds, records of receipts and expenditures, ordering of equipment and supplies, and maintenance of inventories. Clerical personnel are required for maintenance of student records, preparation of teaching materials, correspondence and miscellaneous typing. It is important to free teachers from clerical work so that they may give full time to educational activities.

The library should be organized and operated by a trained librarian. Sometimes a teacher is made responsible for the library: if this is done, a consultant librarian may be secured to help her organize the library, establish a cataloguing system and set up regulations which will provide for maximum use. Library service to teachers is an important function of the library.

The " house mother " or " residence director " should be a person with the education and social background which will enable her to work as a colleague with the teaching staff and to develop a home atmosphere which will help meet school objectives. She may be responsible for personal and health counselling; in any case she will share in those activities.

The appointment of a health nurse and a health physician will enable the school to develop a health care programme for students and staff and to use this programme as a basis for the teaching of health. Such appointments may be on a part-time basis.

Service personnel will be needed for the maintenance and care of school building and residence.

*Determining facilities and equipment*

The plan of instruction, the number of students and of school personnel will be the basis for selecting and preparing clinical facilities, for planning and equipping laboratories, classrooms, conference areas, and offices.[1] Space and equipment should be planned with

[1] International Council of Nurses (1958) *Basic nursing education*, London

provision for expansion according to expected developments in the foreseeable future. The rooms for various activities should be designed according to their purposes. When a new school is being planned the provision of a separate school building should be considered; it identifies the school as such to the public; it reinforces the status of the students as students; and it can be designed for its purpose even if its construction is limited by lack of funds.

(1) *Clinical facilities.* "It is essential that student nurses be able to obtain not only theoretical instruction but also practical experience in places where there are adequate clinical facilities and under conditions favourable to sound educational work." [1]

Students will need clinical practice in all of the areas indicated in the general purpose, the specific objectives and the plan of instruction. This will include the care of well children as well as of sick children, the care of mothers throughout the maternity cycle, the care of patients at home and in clinics and health centres as well as in the hospital. Although the hospital still plays the major role in providing clinical practice for nursing students, it is no longer possible to define adequate clinical facilities solely by types of hospital services and numbers of beds.

Some of the criteria for determining the adequacy of clinical facilities are:

(*a*) A good standard of medical care which embraces the promotion of health and the prevention of illness as well as the care of the sick. This will be expressed in concern for patients as individuals and as members of families and communities.

(*b*) A good standard of nursing care, or an administrative climate in which good nursing can be developed. Although there is truth in the statement that nurses will not learn good nursing unless they see good nursing being done, it is also true that they learn by helping to build a good nursing service. This can be accomplished when clinical nursing staff is genuinely interested and willing to help with the student programme, and when teaching staff have an equally great concern with helping to improve the quality of nursing service.

"Nursing service personnel must define clearly their philosophy and aims, and the faculty members need to understand the philosophy of the nursing service in relation to the quality of care and the means of providing it. Clarifying to faculty members the concepts of good care as envisioned by the nursing service will take time. I repeat, it is as important that the school accept the philosophy of the service as that the service accept the philosophy of the school." [2]

[1] International Council of Nurses, Committee on Education (1952) *The basic education of the professional nurse* (reprint), London, p. 19

[2] Brackett, M. E. (1959) *Nursing service provides a learning field for students of nursing.* In: National League for Nursing, *Roles and relationships in nursing education*, New York, p. 22

In hospitals, improved care may be developed ward by ward, starting with a demonstration teaching ward. Or simple administrative readjustments may be made, even in the face of restricted budgets and shortage or lack of qualified staff.[1] In out-patient departments and public health agencies, new nursing services may be developed in the process of providing adequate learning experiences for students.

(*c*) Enough nursing staff and flexibility of staffing so that the students' clinical practice can be selected for its educational value. This does not preclude the reality that students will give service, but it ensures that the service will be given as a part of the total educational programme rather than as an end in itself.

(*d*) A variety of kinds and degrees of illness and health problems so that the student has an opportunity to apply the principles she is learning in many different situations. However, variety is not as important as is using every existing opportunity for teaching and learning. For example, almost the whole gamut of medical and surgical nursing skills can be practised in one small ward of patients with typhoid fever and its complications. This is not to say that a school should attempt to provide clinical experience in a small hospital with only a limited number and variety of patients. Perhaps it should be noted that there is no need either to send each student to a large number of departments simply because they are available. The basis for choice is whether the departments have a sufficient variety of experience to meet the student's needs.

(*e*) Written policies and procedures and a records system consistent with good medical and nursing practice.

(*f*) Conference rooms or classrooms where students and their clinical instructors or supervisors can have group discussions relating to actual patient or family care problems and nursing care plans needed.

Standards, policies, methods and facilities are not static. It can be anticipated that their further development will parallel the development of the nursing education programme.

Since it is necessary to provide opportunity for practice in all the various clinical areas specified in the plan of instruction, in hospital wards, out-patient clinics, health centres and homes, there is usually no one clinical agency able to provide all of these services. The school must be free to make contracts with community agencies to provide adequate practice fields. These contracts should be in writing, and should specify experience to be provided, conditions of assignment,

[1] Such readjustments as better scheduling of admissions and discharges and of laboratory, X-ray and other special services; centralizing preparation of sterile supplies; printed forms for special requests, diet orders, etc.; reorganizing ward space for linen and equipment; better use of non-professional staff, etc.

and supervision of student experience as well as responsibilities of agency and school (see page 27).

In a hospital school " ... adjustments to hospital administration are obviously necessary. The welfare of patients is the first consideration, but the interests of students need not be sacrificed. If the staffing of the hospital is adequate, if the school is large enough to permit each class to be of reasonable size, if the provisions for instruction are sufficient, and the size of the hospital and its various services are suitable for educational purposes, cooperative planning can assure the use of the institution as a laboratory, so that both students and patients derive maximum benefits ".[1]

(2) *Nursing practice laboratory.* The present trend to decrease the amount of classroom practice and to teach nursing at the bedside has influenced the design of practice space and equipment needed. It should be recognized, however, that such teaching requires much more instructor time than is commonly available, and that there will be need for a nursing practice room. The size of the room will vary with the size of the school: in a school of 60-75 students, with 20-25 students to a class, it should accommodate half the class at a time, and should be designed to take care of expected increases in enrolment on this basis. Scheduling becomes complicated if a class of this size must be divided for practice into more than two groups. It is useful to have a demonstration area large enough to seat the whole class, but demonstrations can be done in the regular classrooms provided they are near by and that the doors are wide enough to move in beds as needed. Equipment should be approximately the same as that in use in the clinical facilities, provided it is adequate for good nursing care. If it is inadequate, the school has the responsibility for working with the service agencies to improve equipment. If the objectives indicate that the graduate should be able to nurse in all situations, equipment should be such as to allow demonstration of nursing care not only as found in the hospital, but as given in clinics, health centres and homes.

(3) *Science and nutrition laboratories.* A science laboratory for the teaching of anatomy and physiology, chemistry, and bacteriology is needed, and should provide for individual activity for a complete class. Moveable furniture and adequate cupboard space would make this multiple function possible; the nutrition laboratory could double as a conference room or classroom. It would be useful if it could accommodate half the class and thus make simultaneous

[1] Bridgeman, M. (1953) *Collegiate education for nursing*, New York, Russell Sage Foundation. p. 62

scheduling of nursing practice and nutrition laboratory sessions convenient. A tentative teaching schedule for all the classes is extremely helpful in identifying the need for both laboratory and classroom space.

(4) *Library.* A library large enough to seat one class is recommended. Lighting and heating making it suitable for evening use is essential. The World Health Organization has prepared a bibliography[1] which is helpful in assembling a nursing library including English and French titles. In addition, available textbooks, periodicals and reference materials on nursing, health and related subjects in the language of the country should be included. Schools without access to a general library may wish to include books and periodicals of general as well as of professional interest. Daily newspapers also have a place.

(5) *Classrooms.* If the plan of instruction provides for continuous classroom teaching throughout the course, as proposed in the recommended plan of instruction, it is useful to have one classroom for each year's class. If group discussions are to be used freely as a teaching method, larger classrooms can be adapted for simultaneous use by several groups, provided moveable furniture is chosen. Tables large enough for two students can be arranged in rows, with chairs, for lectures, and can be easily re-arranged for use by four, six, eight or more students working in a group. Conferences are more effective across table space than when chairs with writing arms are provided. All classrooms need blackboard space, chart racks, and exhibition areas for posting exhibits, etc.[2] Ventilation, lighting and temperature must be considered, and siting of classrooms should take into account prevailing winds, sunlight and shade. Curtains for classroom windows are needed for use with projection apparatus.

(6) *Administrative offices.* These should be accessible to teaching staff and students, and independent of the offices for nursing service administrative personnel. It is desirable to have a reception area separate from the work area for business and clerical staff. The director's office needs space for conference with small groups. Telephone service is essential. Space for files and for storage should be designed to make daily work easy.

(7) *Offices for teaching staff.* Teachers need enough space to provide reasonable privacy both for class preparation and for con-

[1] *Bibliography of textbooks and reference books suggested for basic and post-basic nursing education programmes*, July, 1957 (mimeographed working document No. MHO/AS/49.57)

[2] See World Health Organization (1958) *List of equipment suggested for a school of nursing* (mimeographed working document No. WHO/AS/89.58)

ference. Bookcases, files and work tables, in addition to individual desks, should be accessible. Clinical teachers need space for desk work, conference, and storage for teaching materials close to the hospital areas where they are assigned.

(8) *Student health unit.* Facilities should provide a setting for health counselling, periodic health examinations, immunizations, early diagnosis and care during illness. There should be easy access for students and daily office hours with a physician on call at all times. The design of the programme to facilitate the continual practice of good personal health by students should be the basis of planning for this unit. When the student health service is a part of health service for hospital personnel, planning is required to meet the special needs of the students and to encourage them to assume responsibility for their own health.

(9) *Transportation.* The placement of clinical practice areas in relation to the students' residence and the schoolrooms will be the basis for decisions as to transportation. It should be adequate, dependable and safe.

*Defining the housing and recreational facilities*

The relative values of residential and non-residential accommodation have been discussed in *Basic nursing education.*[1] It is important to consider the customs of the country in deciding on housing. There are areas where it is socially unacceptable for unmarried girls to live away from their families, where whole families will move to an educational centre rather than have their daughters away from home. In other countries, the prestige and protection afforded by living in a well-ordered nurses' residence may be the determining factor in parents' decisions to permit their daughters to study nursing. Still other cultural groups may prefer more independent living, for example, at home or in accommodation available in the community.

If it is decided that the school will provide housing facilities, they should be planned with attention to local cultural patterns. For example, although it may be generally assumed that single bedrooms are desirable as allowing for individuality of expression and to facilitate study, there are situations where girls have been so accustomed to sharing a common family room that they would be insecure and quite unhappy in a room alone. The professionally desirable qualities of self-reliance and independence are usually strengthened by permissive

[1] International Council of Nurses (1958) *Basic nursing education*, London

residence regulations and by a sharing of responsibility by students in developing regulations. However, in countries where women have been traditionally dependent and protected, it may be necessary to start with well-defined regulations and to approach a freer form of social living gradually. In such a protected environment, facilities for recreation and cultural activities have greater importance than in a freer environment.

In developing a position description for the "house mother" or "residence director", it is important that her role as the hostess should not be confused with the role of housekeeper. She may or may not have responsibility for supervision of housekeeping activities, but students, their families, the public, and even more important, the school staff, should be aware of her status as the "mother of the house". This is important since in her hands largely is the guidance of the students as they expand their social concepts and begin to find themselves as professional workers in a broader society than they knew as schoolgirls or as daughters in a household. She should have an assured social position in the community and should be a person in whom families will feel confidence.

The total living environment should be such that it affords the student experience in healthful living. Furnishing of students' rooms will be in keeping with local custom. Each student needs a bed, a desk, a comfortable chair and a place for keeping her books, personal belongings and clothing. There must be adequate light for studying and suitable heating arrangements. In some countries students provide their own mattresses and bedding. The residence arrangements must provide for the laundering of uniforms, bed linen and towels. If students are to practise healthful care of themselves, they need the means to provide it—sufficient hot water, bathing and laundry facilities.

Decision is needed as to whether a dining-room will be a part of the nurses' residence. If it is close to the hospital, provision may be made for the use of the hospital dining-room. An advantage in terms of objectives might be that students would have contact at mealtimes with staff nurses and other hospital personnel and to that extent live a less restricted life. Whatever arrangement is made, the nutritional needs of students of whom many will still be adolescents require careful assessment. Supplementary snacks available in the students' residence may be provided, especially if the hospital evening meal is early and students use several evening hours for study. Food should be palatable in terms of the student's own eating habits, in addition to meeting nutritional needs.

In designing recreation facilities, it is important to look at the experience of other boarding schools in the country, and to anticipate

some modification as students themselves develop ideas of what they want. There is nothing so depressing as an unused tennis court occupying space which might provide a garden or a goldfish pool. A big work-and-play room with potential for development and funds to allow for furnishing it as the need arises is much more likely to be used than a fully equipped room with facilities chosen for the students rather than by them. Organized sports may be seen as part of the health programme and scheduled in the plan of instruction. If so, facilities will be needed and a trained physical education teacher would be a valuable asset.

If the students' life in the school residence is seen as a part of the curriculum and a means for preparing her for her future role, it is important that facilities for the receiving of guests be available. For example, it may be a community in which coffee is always served as soon as a caller enters the house. If so, students should be able quite naturally to greet parents and friends with this courtesy.

*Estimating operating costs, including maintenance, services, and supplies*

"A nursing school should not be established unless it can be adequately supported . . . education is a matter of public concern, and state and public authorities should recognize their duty to contribute to, and to a large extent maintain, nursing schools just as they do schools for teachers and other workers largely employed in public service." [1]

Operating costs will include provision for all school personnel; administrative, teaching, special services and housekeeping staff; current purchase of library and teaching equipment and other supplies; student accommodation, health care, books and uniforms, and other student personnel services; transportation and other costs of clinical practice; and general maintenance.

Salaries for personnel will reflect the salary structure of the community, particularly for health personnel. If, however, the school is to contribute to an increasingly effective nursing service, the attraction of personnel of the highest potential may call for an adjustment upward of prevailing rates, particularly for the director and the teaching staff. A clear definition of qualifications for all personnel will help in the establishment of salary policy. Initial estimates of operating costs, maintenance of residence, health unit, and schoolrooms can be made without difficulty, but costs of library additions, teaching supplies, etc., will need to be recognized as tentative until the school is in operation. Services to students, food, uniforms, laundry allow-

[1] International Council of Nurses, Committee on Education (1952) *The basic education of the professional nurse*, London, p. 21

ances, books, health care, etc., will depend on enrolment, and estimates should take this into account.

A policy must be established regarding the cost of the facilities provided by the agencies where students gain clinical experience. As teaching facilities whose personnel contribute to the education of the student, the agencies provide service to the school, while to the extent that students contribute to the care of patients, the school provides service to the agency. There are intangible values to the agency in the presence of a school which is stimulating to the quality of care given to the people whom the agencies serve.

Many efforts have been made to estimate the monetary values of these services and to establish equitable arrangements to recognize it. Short clinical experiences are more costly to the agency than the value of the service given by the students, and schools sometimes pay for the privilege of using the agency. In such situations, the agency may consider its contribution to nursing education a justified expense and no exchange of funds takes place. In longer clinical experiences, service to the agency will have relatively more value. An increasing number of schools receive no financial return, either directly or as stipends to students. A cost accounting system which clarifies the value of school services to the agency and of agency services to the school, even though there may be no exchange of funds for some of the services, will contribute to the recognition of student status and the abandonment of employee status for the student nurse. If the system of paying stipends to the students is retained, these stipends should be classified as educational grants and should be recognized as a contribution of school or of agency towards education and should not be considered either officially or unofficially as payment for service.

*Assembling data for financing*

After a survey of the various decisions which will affect the cost of establishing and operating the school, decisions can be made as to the construction, purchase, rental, or remodelling of buildings, and to the provision of their basic equipment and furnishings. These decisions will define capital costs. Available funds for establishing the school may meet these costs, or it may be necessary to seek further funds if the planning committee is satisfied that they are essential. The analysis which has been made will be invaluable in a review of possible adjustments. After such an analysis, the temptation to feel that initial expense in establishing the school is the main financial consideration will be resisted. In countries where capital costs are met by special grants, perhaps from an international source, it is

extremely important to design a programme which can be carried on when special funds are no longer available. Good teaching can be done in simple settings with simple equipment if the teachers are well prepared and highly skilled.

Preparing a calendar for creating teaching facilities and undertaking the preparation of clinical facilities, locating and preparing personnel, ordering equipment and supplies, enrolling students, and opening the doors of the school will be the culmination of the first stage in the planning process.

Sub-committees which have been investigating various aspects of the new programme may be given further responsibility. Ideally, the director of the school and senior instructors have already been appointed and have worked with the sub-committees. When an estimate of time needed to prepare teaching areas and equipment and to secure teachers is made, plans for public announcements and recruitment can be put into operation. No two situations will have the same time needs, and initial plans may have to be adjusted; for example, if there is a delay in securing teaching staff, opening the school should be postponed until they have been secured and have had a chance to work on teaching plans, in particular those related to clinical experience. A teacher arriving at the school on Saturday cannot meet students on Monday. Ideally, she will have several months in which to become acquainted with the plan of instruction and with her colleagues before she must teach. Even with the best of plans, there will be plenty of opportunity for personnel to practise the fine art of adjusting to unavoidable complications.

*Evaluation*

The statement has been made that planning is a continuous process. As early plans become operational, a plan is needed for measuring the effectiveness of the teaching by collecting data as to the performance and development of the graduates. Sources of information will be the graduates themselves and their employers, colleagues in the health services, and the consumers of nursing service.

A record of the professional career of each graduate should be maintained by the school; the positions held and employers' evaluations, achievement in licensing examinations and in advanced courses of study, activities in professional associations, and leadership in the community. Annual inquiry letters to graduates will contribute much of this information. An alumnae association can be the agent for helping to maintain records for the school. Return visits to the school for professional institutes can be arranged. Such meetings can serve

to obtain information from graduates as to the effectiveness of their preparation. The programme of the school may need to be modified on the basis of this information. Members of the planning committee, by virtue of their positions—for example, health service administrators —will have access to information on notable contributions to the services by graduates or on weaknesses in the opinion of administrative personnel.

It is important that the search for information be based on the school objectives, if findings are to be used in modifying objectives and consequently modifying programme and teaching methods. Finding that a graduate was not prepared to organize an operating room in her first position will not be significant if the programme was designed to prepare her to function as a staff nurse under supervision. However, it can raise the question: " Should we be preparing her for this advanced skill at the basic level? ". Unless the objectives are the basis for evaluation it is impossible to know whether they and the programme need changing.

It is important that data as to performance by graduates be studied not only by the planning committee but by nursing school personnel, nursing service personnel and others who may be potentially helpful.

Students themselves can make important contributions in revealing their opinions and feelings about the course. As the only persons who have actually experienced the programme, they are in a unique position to contribute to its evolution. If they have had a chance to evaluate their own performance throughout the course they will be able to make constructive suggestions.

While it is essential to evaluate a programme in terms of its own objectives, it is also important to secure help in what might be called external evaluation. The national licensing examinations can provide data as to how the graduates stand with respect to those of other schools. When graduates undertake post-basic study in neighbouring countries, a determination of the relative standing of the graduates from the various countries could be valuable. A study of accreditation standards from other countries can be helpful. When graduates are to study abroad it may be advisable to consider the professional and academic standards which they must meet in order to undertake such study and to be recognized in the country where the study is undertaken. In many countries post-basic study for senior levels may not be available in the foreseeable future. It is therefore important that a broad approach to evaluation take into account the need to develop the programme, perhaps by a series of stages, to a level which will be a basis for advanced study elsewhere.

# CONCLUSION

This guide has discussed some of the principles upon which sound planning for nursing education is based, and has suggested procedures which may be helpful to those responsible for such planning. Particular reference has been made to countries where nursing education is developing and where international nursing advisers are assisting local nurses in their planning for the future.

If there is a golden rule for such planners, it is that the plan must be made to fit the local situation and that all who will have a part in carrying out the plan should have a share in making it.

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# SELECT BIBLIOGRAPHY


Abdellah, Faye G., Beland, I., Martin, A. & Matheney, R. (1960) *Patient centred approaches to nursing*, New York, The Macmillan Company

Develops a rationale for nursing education around a list of 21 nursing problems with the use of 11 groups of nursing skills. Applications in three types of basic nursing education programmes are described.

Arnstein, M. G. (1953) *Guide for national studies of nursing resources*, Geneva

This guide is of value to any group desiring to study its nursing needs and resources. Suggestions for compilation and classification of data are found in Annex I.

Bixler, R. W. & Bixler G. K. (1954) *Administration for nursing education in a period of transition (Modern Nursing Series)*, New York, G. P. Putnam's Sons, 483 p.

Application of general educational philosophy to nursing education administration. Presents the functions and processes of administration, essential features of school operations, and planning. Extensive bibliography.

Bridgman, M. (1952) *Collegiate education for nursing*, New York, Russell Sage Foundation, 205 p.

Summarizes existing conditions in nursing service and nursing education. Useful to readers interested in facts about collegiate education in the USA at the time of publication.

Brown, E. L. (1948) *Nursing for the future*, New York, Russell Sage Foundation, 198 p.

Recommendations for reorientation of United States nursing education to meet present and future needs of society, with implications for planning of nursing education elsewhere.

Canadian Nurses Association (1960) *Manual for head nurses in hospitals*, Ottawa

Concise guide—useful in interpreting the functions of the head nurse, in inducting head nurses into their jobs, for consideration in planning in-service programmes,

and for instruction of basic nursing students in orienting them to clinical experience. Appendices helpful and informative.

Canadian Nurses Association (1960) *Spotlight on nursing education: The report of the pilot project for the evaluation of schools of nursing in Canada*, Ottawa (English and French)

A study sponsored by a national nurses' association. Aside from the findings, which are important, the organization of the study and its techniques are also useful. Valuable references for any group contemplating a study.

Cowan, M. C., ed. (1959) *Year book of modern nursing*, New York, G. P. Putnam's Sons

Current trends in nursing and nursing education. Extensive bibliographies.

Filipino Nurses Association, Nursing Education Section (1956) *Curriculum guide for Philippine schools of nursing*, Manila

This book is valuable for its content as applied to one particular country and for the methods used by a group of nurses to develop a curriculum suited to the needs of the Philippines.

Freeman, R. & Holmes, E. M. (1960) *Administration of public health services*, Philadelphia, London, W. B. Saunders Co.

Concepts of administration applicable to all fields. Section on programme planning and implementation with clarification of levels of planning especially applicable.

Goddard, H. A. (1958) *Principles of administration applied to nursing services*, Geneva (*World Health Organization: Monograph Series* No. 41)

A concise presentation of administrative principles and their application. Discussion of administrative techniques.

Hopkins, L. T. (1954) *The emerging self*, New York, Harper Brothers

A presentation of the differences between the old and the new ways in education.

International Council of Nurses, Committee on Education (1952) *The basic education of the professional nurse* (reprint), London, 74 p.

The basic philosophy and much of the content is applicable today.

International Council of Nurses (1958) *Basic nursing education*, London, 144 p.

Principles of basic nursing education and suggestions on how they may be implemented.

Jelliffe, D. B. (1955) *Infant nutrition in the subtropics and tropics* (*World Health Organization: Monograph Series* No. 29), Geneva, 237 p.

Describes infant feeding practices and common nutritional diseases in these areas and suggests practical approaches to improvement. The importance of a knowledge of local food ideology, and of the cultural background, is stressed.

Livingstone, Sir Richard (1949) *The future in education*, Cambridge University Press

MacGregor, F. C. (1960) *Social science in nursing: applications for the improvement of patient care*, New York, Russell Sage Foundation

Description of an experimental project in the application of the social sciences to nursing and to the methods used in teaching of student nurses. Helpful to nurses, teachers of nurses, and students.

Mead, M., ed. (1953) *Cultural patterns and technical change*, Paris, Unesco, 348 p.

A manual prepared for the World Federation for Mental Health. Contains cross-cultural studies of six aspects of social change, including agriculture, nutrition, maternal and child care, public health, industrialization and fundamental education. The mental health implications are discussed.

Paul, B. D., ed. (1953) *Health, culture and community*, New York, Russell Sage Foundation, 493 p.

Concerned mainly with the immediate situation where medicine and community meet. It contains 16 studies dealing with health situations or health programmes operating at the community level in Asia, Africa and the Americas. The book reports what does happen, not what ought to happen, so that health workers can make their own decisions and their own appraisal of results.

Petry, L. & Block, L., ed. (1947) *Cost analysis for schools of nursing: a manual of methods and procedures*, United States Government Printing Office, Washington, D.C.

Briefly discusses importance of determining costs. Detailed schedules for determining real and apparent costs with explanation of their use.

Read, M. (1955) *Education and social change in tropical areas*, London, Nelson, 130 p.

The application of social anthropology to educational problems. Cultural factors which hinder improvement of health and nutrition are discussed.

Royal Anthropological Institute of Great Britain and Ireland (1951) *Notes and queries on anthropology*, London, Routledge & Kegan Paul, 403 p.

A guide to the kind of questions the health worker, untrained in anthropology, should ask about the various aspects of the culture in which he is working.

Tyler, R. W. (1950) *Basic principles of curriculum and instruction*, University of Chicago Press, Chicago, 90 p.

Presentation of the main steps in curriculum planning.

Whitehead, A. H. (1950) *The aims of education*, London, Williams and Northgate

World Health Organization (1960) *Post basic nursing education programmes for foreign students: Report of a Conference, Geneva, 5-14 October 1959*, Geneva (*Wld Hlth Org. techn. Rep. Ser.*, No. 199)

Useful for personnel responsible for selection, counselling and placement of students who are contemplating study in a foreign country. Helpful for students undertaking study abroad and for personnel working with them.

World Health Organization, Expert Committee on Maternal and Child Health (1957) *Administration of maternal and child health services*, Geneva, 28 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 115)

Valuable reference for anyone undertaking a study of the maternal and child health services. Provides perspective where questions as to functions of nurses and midwives are under review.

World Health Organization, Expert Committee on Midwifery Training (1955) *Report*, Geneva, 21 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 93)

A description of types and functions of midwifery personnel with proposals as to their education and appropriate legislation.

World Health Organization, Expert Committee on Nursing (1950) *First report*, Geneva, 30 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 24)

Discusses needs for nursing services and use of nursing personnel. Outlines needs for educational programmes.

World Health Organization, Expert Committee on Nursing (1952) *Second report*, Geneva, 20 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 49)

Emphasis is on health needs and how nursing can help to meet these needs. Includes general functions of the nurse and principles involved in planning programmes for preparing nursing personnel.

World Health Organization, Expert Committee on Nursing (1954) *Third report*, Geneva, 28 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 91)

Analysis of nursing service administration and recommendations for its improvement.

World Health Organization, Expert Committee on Nursing (1959) *Public health nursing. Fourth report...*, Geneva, 31 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 167)

Discusses the functions of public health nursing and the administration of the service. Education for public health nursing should be a part of the basic nursing curriculum.

World Health Organization, Expert Committee on Psychiatric Nursing (1956) *First report*, Geneva, 43 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 105)

The discussion of the education of psychiatric nurses has direct application to the planning of all nursing education.

World Health Organization, Joint WHO/FAO Expert Committee on Nutrition (1953) *Third report*, Geneva, 30 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 72)

The emphasis on social and cultural factors influencing nutrition is of value to both teachers and students of nursing.

World Health Organization, Working Conference on Nursing Education (1953) *Report*, Geneva, 30 p. (*Wld Hlth Org. techn. Rep. Ser.*, No. 60)

Discusses the relationships between the nurse and other health workers. The situation approach to teaching is described.

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