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**THE FOREIGN STUDENT
AND
POST-GRADUATE PUBLIC HEALTH
COURSES**

**Sixth Report of the Expert Committee
on Professional and Technical Education of
Medical and Auxiliary Personnel**

WORLD HEALTH ORGANIZATION

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GENEVA

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**EXPERT COMMITTEE
ON PROFESSIONAL AND TECHNICAL EDUCATION OF
MEDICAL AND AUXILIARY PERSONNEL**

Geneva, 7-12 July 1958

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THE FOREIGN STUDENT AND POST-GRADUATE PUBLIC HEALTH COURSES *

Sixth Report of the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel **

The WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel met in Geneva from 7 to 12 July 1958. Dr E. L. Stebbins was elected Chairman; Dr A. L. Ayroza Galvão was elected Vice-Chairman; and Dr W. S. Walton, Rapporteur.

The Director-General, Dr M. G. Candau, opened the session. He referred to the assistance given by the World Health Organization to governments, enabling some of their nationals to receive post-graduate public health training abroad, when such training is not available in their own country or when more advanced studies are required. In some cases, the candidate or the government concerned requests such training; in other cases, it is on the advice of WHO that the studies are undertaken, by persons intending to make public health their career, by seasoned public health workers wishing to consolidate their experience with theoretical training, or by specialists in various branches (tuberculosis,

* In 1953, the Executive Board of WHO, at its eleventh session, reporting on the Education and Training Programme of WHO, including its fellowship activities, referred to the need "to study the curricula of training institutions in order to attempt to adapt existing courses to the needs of WHO Fellows and establish new courses for them" (Organizational Study on the Education and Training Programme. *Off. Rec. Wld Hlth Org.*, 1953, 46, 131). The Tenth World Health Assembly approved the holding of an Expert Committee in 1958 to "examine the subject of public health studies undertaken on WHO fellowships" (Proposed Programme and Budget Estimates for the Financial Year 1 January-31 December 1958. *Off. Rec. Wld Hlth Org.*, 1956, 74, 53).

** The Executive Board, at its twenty-third session, adopted the following resolution:

The Executive Board

1. NOTES the sixth report of the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel (The foreign student and post-graduate public health courses);
2. THANKS the members of the Committee for their work; and
3. AUTHORIZES publication of the report.
(Resolution EB23.R35, *Off. Rec. Wld Hlth Org.*, 1959, 91)

venereal disease, etc.) willing to see their activities in proper perspective and to weld them into a solid, general public health structure.

The Director-General referred to the constant attention paid by WHO to the question of whether such training as is obtained abroad meets the needs of the foreign students. It is very often given in countries more developed socially and economically, with a more advanced public health organization, and with major public health problems which are often different from those of their own country. Students acquire in these courses knowledge of methods of work and of organization. They acquire a grasp of general principles and concepts, and often develop an *esprit de corps* and a vision for the pursuit of public health. Satisfaction with the general results obtained does not, however, preclude the observation of some weaknesses of commission or omission. The students report on them. That the schools running the courses are alert to these imperfections is shown by the changes introduced in their programme. Both WHO and the governments sending the students are also aware of them. There is, therefore, a wide, keen interest in the subject that the Committee was called to discuss.

The Director-General linked the present meeting to the earlier ones, attended by deans and professors of schools of public health and convened by the Health Organisation of the League of Nations. These meetings were held in the years when the idea of schools of public health was yet a new one. The present meeting was called to provide an opportunity for the pooling of the wide experience which had accumulated and for the outlining of recommendations which would be of value to the schools, the students, and to WHO and its Member States.

1. GENERAL CONSIDERATIONS

In its general discussion the Committee clarified the term "foreign students" as including all students who are not residents of the country where the post-graduate course is given. These foreign students represent many cultures; sometimes differences between nationals from different areas of the country itself may be as great or even greater. Schools of public health welcome the presence of foreign students in their classes. Not only do they call for a diversification of the teaching, but they also contribute their different health experience, point of view and cultural approach. The detailed questions under discussion were raised in connexion with the training of foreign students but, in many cases, the discussions applied equally to national students.

Especially in the case of countries having their own post-graduate public health courses, a major aim in sending nationals abroad for advanced studies should be the preparation of teachers, leaders and

research workers in public health. Such training may differ substantially, in both length and content, from the usual post-graduate public health courses.

It was the understanding of the Committee that in all cases in which it is possible (size of population and number of prospective students, available teaching personnel and facilities, cost) countries should continue to aim at organizing their own post-graduate public health courses or, at least, some systematic training for their health professions, as part of the national health plan.

The Committee recognized that only a small portion of the needed health personnel could possibly attend schools of public health at home or abroad. National or regional training facilities of other types need to be provided for preparing the bulk of a country's national health workers.

The Committee decided to include in its deliberations a discussion on the development of world-wide minimum requirements or general guidelines for post-graduate public health education. It wished to consider the possibilities open to WHO for such an undertaking.

The Committee agreed to concentrate their attention on the education of foreign students in schools of public health. Education is a continuous process, however, and the need was stressed to take into consideration the extent to which the students have been taught in their professional schools such disciplines as preventive medicine and public health. The past ten years have seen, in a large part of the world, a vast change in the provision of health care services through multi-purpose health centres. The general practitioner connected with these centres becomes the purveyor of health care to the local community. It has become imperative that special efforts should be made by medical schools towards promoting adequate preparation of medical students, under organized clinical and public health supervision, for discharging these functions. There is also the need for short courses for practitioners, who are not oriented to health care functions. One of the urgent responsibilities of a school of public health towards foreigners may be the preparation of teachers in preventive medicine and public health for the medical schools, in co-operation with the clinical departments.

It was the opinion of the Committee that its discussion should not be limited to a pooling of experiences and to suggestions for improving the existing situation; the Committee wished to bear in mind desirable or anticipated developments, even though these may still be distant and may be only gradually achieved.

The Committee is cognizant of reports of earlier expert committee meetings and other WHO publications, as well as some documentation from the Health Organisation of the League of Nations, which are relevant to the matters discussed. A partial list is given in Annex 1 (page 21).

2. METHODS FOR PROMOTING EARLY INTEGRATION OF FOREIGN STUDENTS INTO THE CLASS, INCLUDING SELECTION OF STUDENTS

Smooth integration of foreign students into a class is of the utmost importance. The Committee considered that the subject should be reviewed in terms of what happens before the student arrives, what happens on his arrival, and what happens during the course at the school. The arrangements for integration into the course should include :

- (1) Student selection and preparation ;
- (2) Reception and orientation ;
- (3) Personal student counselling ;
- (4) Presentation by the students of matters concerning public health in their own countries ;
- (5) Social and cultural activities.

2.1 Student selection and preparation

The Committee recognized the responsibility of the countries and agencies sponsoring the students to determine clearly special learning needs in the process of selection and to transmit to the school all information required, including reference to qualifications, personality, capacity and language ability, the schools having to decide whether the candidate is to be admitted.

There should be no question in the minds of the student or school concerning the public health focus of the instruction desired and to be offered. Special learning needs should be documented in detail, whether arising from deficiencies in background knowledge or from position or responsibilities assigned upon the return of the student to his country.

The Committee urges the governments and candidates to recognize the great advantage to the student of early application. Early application and acceptance of the student will permit the professor or members of his staff to initiate personal correspondence with the intended candidate which will afford valuable additional information both to the school and to the student. Such information will help the student better to prepare himself in advance for the course by filling in gaps in basic knowledge.

2.2 Reception and orientation

The responsibility for the integration of the foreign student, for his feeling "at home", and for his absorption into a new group rests with

the school and begins with adequate arrangements for a friendly reception. Many students feel lost after arrival in a strange country, and there may be a tendency for some members of the same nationality to cling together, thus somewhat delaying their absorption into the class group.

Some form of orientation prior to the beginning of academic sessions is practised by most schools and on the whole has proved successful. The period of orientation varies from a few days to several weeks. A minimum of two weeks seems desirable provided the orientation is carefully planned to include, among other activities, the following: early meetings with the staff and possibly their families; orientation in the social and cultural patterns of the country and locality; introduction to the school, the hospital and other branches of the university so that the student will be more familiar with the services available to him, including the student health service, the library and other resources; opportunity to become acquainted with the faculty adviser and to receive some help and guidance in the selection of courses offered as well as in the understanding of the philosophy and methods of education of the school. The period of orientation will be particularly helpful to the foreigner whose native language is different from that of the country of study, and will enable him to gain confidence early. Even the national students will benefit from this opportunity to orient themselves in their new surroundings.

2.3 Personal student counselling

Arrangements for student counselling vary greatly in different schools. Some adopt a formal approach, in which students are assigned to tutors. In other schools, students choose their advisers more or less informally. In every school there are some faculty members who have a natural appeal to students.

Counselling of students may take the form of advice on the content of the course of study, or it may be of a personal nature. The need for the latter is usually greater in the case of foreign students.

Another form of counselling is available through the formation of student affairs committees, whereby students and members of the faculty come together at a very early period. A foreign student is always included in the committee membership.

The Committee recognized the need for flexibility in any measures taken for counselling.

2.4 Presentation by the students of matters concerning public health in their own countries

It is the policy of many schools to require the student coming from another country to bring with him material relating to public health and

general conditions in his own country, including, perhaps, graphs, pictures and records, in order that he may contribute to the class seminars, or prepare for a thesis. By taking an early opportunity to present this material the student gains confidence and makes a good start in contributing to the general knowledge and fact-finding of the class.

2.5 Social and cultural activities

Social and cultural activities were considered most valuable in promoting the early integration of foreign students. The formation of social clubs may be one of the means. It was felt necessary to stress the value of social and cultural education in the professional development of both the foreign and the national student.

The Committee felt that, normally, no obstacle should be placed in the way of the student who wishes to bring his wife and family with him. It might be well, however, to allow for a 2-3 months' period before his family comes to join him.

3. METHODS OF ASCERTAINING THE SPECIAL LEARNING NEEDS OF FOREIGN STUDENTS

The evolution of the post-graduate courses has shown that the schools of public health are aware of the changing emphasis in public health. Since no objective criteria have been established to ascertain special learning needs, subjective data or opinion should be obtained by formal and informal methods and constantly evaluated. Three areas of opinion need constant exploration : (1) faculty and school ; (2) countries and agencies ; (3) alumni.

3.1 Faculty and school opinion

3.1.1 The programme of fellowships for teachers in schools of public health to enable them to visit countries from which these students come is an excellent method. Many of the senior faculty members have had experience in foreign countries, but many of the junior members, who have more time and contact with students, have not. Furthermore, some experience may have been limited and not pertinent to determining the learning needs of the nationals of the countries visited, and some previous foreign observations may be out of date, owing to rapidly changing situations.

Such fellowships should be used exclusively for the teacher to understand the conditions and problems of the country concerned and the

strengths and deficiencies of the preparation that the alumni had received. However, the opportunity may be taken to combine with such fellowships granted to senior faculty members an assignment for teaching or for rendering advisory service to the authorities. *Vice versa*, the opportunity of an assignment may be combined with a fellowship.

Planning of the fellowships well ahead of time would be a distinct advantage. Granting a group of such fellowships to a single school may be more profitable than a succession of single fellowships.

The value of the fellowship depends greatly on the personality of the teacher who goes abroad, but it could be enhanced by systematic arrangements for presentation of the findings to the entire faculty and discussion of conclusions and recommendations. Circulation of pertinent extracts to other schools may be desirable.

3.1.2 Evaluation of courses taken by foreign students is, and should be, conducted by the teachers as a matter of routine. This technique involves a formal evaluation sheet drawn up by each student at the end of the course or year—usually unsigned to promote more objective and frank criticism.

3.1.3 An informal evaluation should be made continuously by the teacher or school on courses and content having the most or the least value to the student. The effectiveness of this method is in direct relation to the interest and concern of the teacher.

3.1.4 Exchange programmes between faculties of schools of public health in different regions of the world have often been of value.

3.2 Countries' and agencies' opinion

3.2.1 Formal opportunity to express opinion is given by some schools to the governments employing the graduate of the school and to the agencies sponsoring the studies abroad. This is done through advisory committees or visiting committees composed of agency heads or directors of health. They meet annually to discuss learning needs and the implication of such needs for curriculum or course structure or content, in an effort to determine what is lacking or what needs strengthening or deleting.

3.2.2 Informal evaluation is also solicited at meetings, visits and all possible occasions of contact with governments and agencies. In the case of foreign students, the "consumer opinion" is more difficult to arrive at. The schools have to depend largely upon the agencies sponsoring the students in the country, and this role of the agencies may be further developed. Visits to the schools by agency representatives and national administrators provide opportunities to discuss special learning needs with students and faculty.

3.2.3 It was felt by the Committee that assignment of experienced personnel to the schools by international agencies, upon the request of the schools, for a one- or two-year period, would provide for more emphasis on the special learning needs of foreign students.

3.2.4 It was also suggested that the possibility should be explored of arranging for meetings of directors of public health or ministers of health from different countries and deans of schools of public health, before, during or after the World Health Assembly and/or regional committee meetings.

3.3 Alumni opinion

This is solicited by questionnaires, by faculty or sponsoring agency staff during foreign travel, assignment, or at meetings, when alumni are interviewed. It must be evaluated in relation to the time that has elapsed since the student was in school, as rapid changes in the structure and content of school curricula make some observations obsolete. A period of two to five years after graduation is often most productive of sound criticism.

4. FORMS OF CURRICULUM AND COURSE ORGANIZATION MORE APT TO MEET THE DIVERSE NEEDS OF FOREIGN STUDENTS

The course in the schools of public health is aimed at providing the fundamental principles, methods and techniques of the sciences basic to public health practice. The application of these principles, methods, etc., must be learnt in the community or field that is the "patient" or focus of public health.

Applied or "clinical"¹ training in public health is taken up in section 6; suffice it to note here that a limited application is possible and necessary in the schools themselves, to illustrate the principles, methods and techniques. Matters of curriculum content are discussed in section 5. The present section is limited to a consideration of suitable curriculum and course organization to meet the diverse needs of students from all over the world.

Many improved forms of curriculum and course organization involve teaching methodology that is more time-consuming, and require more and better teachers and a greater financial outlay. The committee therefore recognizes that such improvements are often dependent upon the

¹ "Clinical" public health science or practice is a term used for its medical analogy and for the lack of a more apposite expression.

availability of these factors. The following methods should be considered for strengthening the curriculum :

(1) The core courses required for every student of public health should include at least : biostatistics, epidemiology, administration and environmental health.

(2) The rest of the programme should be made up of elective or optional courses which, added to the core subjects, greatly help the foreign student to obtain training appropriate to his special needs.

(3) Seminar instruction and work in small groups are considered particularly valuable for students from other countries. They provide good opportunity for case presentation including national or regional problems and material.

(4) In discussing principles and their application, more examples should be used from material drawn from universal data, rather than too many from the local situation. Throughout the course, reference can be made to conditions prevailing in the home countries of the students.

(5) Sufficient free time for library work, research and study was considered especially important for the foreign student.

(6) Applied public health practice and research are discussed in sections 6 and 7.

(7) The Committee emphasized the need for training together the various members of the health profession to demonstrate team-work. Such instruction should include joint classes in basic subjects of common interest and combined field practice and joint seminars for doctors, nurses, sanitary engineers, and other professional groups. The participation of the local health department team has been found of value for this educational experience.

5. SOME OF THE CURRICULUM CHANGES OR ADDITIONS PROPOSED, INCLUDING SUGGESTIONS BY ALUMNI

The programme of one academic year sets, unfortunately, certain limits to the additions that may be made to the curriculum. In fact, the Committee discussed at length the relative merits of retaining the one-year period or of extending the studies. However, even within the one-year period, the course organization (division of subjects into required and optional) and a different emphasis on the subject-matter taught should permit attention to the following needs :

(1) Strengthening the teaching of principles of administration, especially in such subjects as planning, evaluation, budgeting, legislation,

personnel and management practices, and comparative **organization** of various national and local health services.

(2) More teaching in the fundamentals of economics, **banking** and taxation, in order that students can better understand, promote and finance sanitary and other facilities necessary for the improvement of public health.

(3) Greater emphasis on the methodology of administrative research, planning and evaluation (see also section 7).

(4) More reference to principles and methodology of in-service training and preparation of auxiliary¹ personnel.

(5) Better training in the principles of supervision of professional and allied staff; the term "supervision" is understood to mean direction, guidance, instruction and related methods aimed at promoting professional growth and team-work, rather than inspection, criticism and control. Students need to become familiar with the manner in which supervisors in public health, welfare and education work with the staff for whom they are responsible.

(6) More instruction in the basic principles of sanitation, with greater emphasis on rural water supplies, excreta disposal and food hygiene.

(7) More instruction in medical care and medical economics, especially for students coming from areas where health departments are charged with the responsibility for domiciliary, dispensary and hospital care, including methods of evaluating medical care. The student should be informed of systems in the world of organization and financing of medical care with reference to national and family incomes.

(8) Other suggestions refer to the rapidly changing relative importance of one or another health problem, including communicable diseases, air pollution, mental health, chronic and long-term diseases. The Committee was of the opinion that these points were covered in a general way by most courses.

(9) Instruction is necessary in the subject of radiation health protection. Ionizing radiation in all forms and from whatever source is potentially harmful to living organisms and the extent of exposure to such radiation is and has been greater than was previously recognized.

In the future there will be a greatly increased use of nuclear energy, with an inevitable increase in the potential hazards to the public health. The establishment of controls over the use and development of radioactive materials, the development of effective safeguards of the public

¹ The term "auxiliary worker" is used by the United Nations and its specialized agencies to designate a paid worker in a particular technical field with less than the full professional qualifications in that field, who assists and is supervised by a professional worker.

health in the installation and operation of nuclear reactors of various types, and particularly the safe disposal of radioactive waste products are grave responsibilities of the health authorities.

In order to be prepared to carry out effectively a programme of radiation health protection, the health officer of the future must be equipped to meet these needs. The schools of public health seem to be the logical agencies to provide the basic training in the public health aspects of nuclear energy, in co-operation with such special centres of nuclear research and related institutions that may exist. It would also seem imperative that at least some of the schools provide intensive training in this field for the specialist in radiation health protection.

As in all aspects of health protection the schools should, as far as possible, carry on research which will increase the body of knowledge of the subject and stimulate and expedite the more effective control of radiation hazards.

(10) There is need for a better understanding of the whole mechanism of resistance to drugs and antibiotics, including the genetic and enzyme biochemical aspects. The subject of insecticide-resistance is of great concern to public health in connexion with the malaria eradication programme. Students should be able to obtain training, through appropriate elective courses, in these important matters.

The Committee felt that, after consideration of the increasing complexity of public health practice and teaching needs, some schools may want to increase the length of their course, but should do so only if they have the necessary facilities, capacity and resources.

6. POST-ACADEMIC FIELD EXPERIENCE AS PART OF THE PROGRAMME OF STUDIES ABROAD

The Committee recognizes that field training, of which there are many forms, is an extremely important part of professional education in many subjects, particularly public health.

Observational and orientational field training is a valuable part of in-service training and of academic training, and should be conducted during and after formal training periods with carefully planned and properly supervised programmes. It is recommended that this form of field training should be developed or continued and made available to foreign students. One school has increased its academic year to 10 months to provide for one month's field training at mid-term.

There is another form of field training—usually a post-academic, formalized, supervised field experience in public health—that is analogous

to the clinical education and experience in the medical, dental and nursing curricula. It is the most neglected and under-developed aspect of professional education in public health, though most highly developed and emphasized in medical education. This educational experience is for the purpose of teaching the student to put into practice the principles, methods and techniques he has learned in the basic public health science course in the school of public health. The comparative importance and significance of this aspect in public health and medical education can best be illustrated by the following table.

A COMPARISON OF THE USUAL PATTERN OF REQUIREMENTS,
AS TO THEORY AND PRACTICE, IN PUBLIC HEALTH
EDUCATION AND IN MEDICAL EDUCATION

Public health education	Years of instruction	Medical education	Years of instruction
(a) Principles of sciences basic to public health practice, i.e., epidemiology, biostatistics, administration, sanitary and social sciences, etc.	1	Principles of sciences basic to medical practice, i.e., basic sciences and pre-clinical sciences	2-4
(b) "Clinical" public health training, application of principles and methods for determining and meeting community health needs—under close, continuous supervision	None usually required	Clinical medical training, including theory and application of principles and methods to diagnosis, treatment and prevention of disease of individual patients—under close, continuous supervision	2-4
(c) Supervised public health practice, after graduation, with increasing responsibility and decreasing supervision	1-2 in some countries	Supervised clinical practice, after graduation, with increasing responsibility and decreasing supervision (referred to as "internship"* and "residency"** in some countries)	1-5

* "Internship" = hospital experience, usually general, for about one year after obtaining medical degree, but often before obtaining licence to practise.

** "Residency" = selective hospital experience, after internship, usually for specialist qualification.

“Clinical” public health training is a process of “learning by doing” under tutorial supervision. In medical education this is done in the wards and clinics of the teaching hospital. In public health education it must be done in the community and health departments, in a teaching community health centre, with “clinical” public health instructors and a carefully planned curriculum. Each school of public health should develop such teaching community health centres.¹

It is obvious that the principles of public health can be learned in any institution that provides good basic public health science instruction. However, the equally important part of education in public health, the “clinical instruction” applied public health or practice of public health, can best be conducted where social, economic, cultural, political and legal patterns are the same or similar to those where the student will practise.

The difference in social and cultural patterns, needs and problems of communities in different countries is often so great that foreign students gain little experience in such centres that would be directly applicable to the community patient and the practice of public health in their own country. Brief periods of observation and supervised experience in a foreign country may still, however, be valuable as application of principle to an unusual patient in a relatively ideal situation for the purpose of demonstrating the technique and for stimulating vision of the distant future.

Although the establishment of schools of public health is not possible in a number of countries (because of size of country and number of personnel to be trained, lack of academic and teaching personnel, cost, etc.) it is conceivably possible for such countries to sustain one or more teaching community health centres (meeting the prerequisites mentioned earlier), attached to well-developed departments of preventive medicine and hygiene or public health² of medical schools. These could serve for the field practice of the students trained at foreign schools of public health.

¹ The Committee did not consider it its function to establish standards for such “teaching community health centres”, although it would be highly desirable to outline simple minimal requirements for the guidance of authorities developing such facilities. Standardization would be difficult or impossible without prolonged study. However, there was general agreement that for “teaching community health centres”, where these are established and used, there are four prerequisites:

(1) Educationally qualified and experienced full-time director and staff in all the major health fields, with competence, interest and desire to do educational work.

(2) A detailed plan and programme of education—an educationally sound curriculum for “learning by doing” under close continuous supervision.

(3) A sufficiently broad programme of activities and a large enough population to provide for a well-rounded experience.

(4) Adequate funds to provide for the educational experience.

An example of standards for the organization and operation of such a centre—as planned for one case—is given in Annex 2 (page 22).

² The terminology used varies according to country.

7. COMMUNITY AND ADMINISTRATIVE RESEARCH AS A METHOD OF POST-GRADUATE EDUCATION IN PUBLIC HEALTH

One of the purposes of primary and secondary levels of education is to provide the basis for more advanced study. At these levels the subject-matter can and probably should be more or less standardized, providing a foundation of knowledge for either vocational training or professional education. Post-graduate education assumes that the student has already acquired basic knowledge of the field in which advanced study is to be undertaken.

Post-graduate study should incorporate the principle of research—that is, the development of the individual's capacity for creative activity and original thinking. In the field of public health, post-graduate education should include not only the introduction of the student to new concepts, new methodology and techniques, but also the opportunity to apply these new methods and techniques to the basic problems of the community. Students must be prepared to advance the science and art of public health through research in this area.

One of the most serious defects in the science of public health is the deficiency in the research aspects of the discipline. This is particularly true in the area of administration. There has been a tendency to accept and continue administrative practices without sufficient evidence of their effectiveness. Legislative sanction of administrative procedures has been accepted as sufficient reason for perpetuation of possibly out-moded practices. The development of the concept of "operations research", or of research in administration, is relatively new but offers a scientific approach to administrative practice. The future advance of public health practice will depend in large measure upon the adequate development of this phase of public health education.

The practitioner of public health will be expected to assume leadership in the study of administrative practices, in the evaluation of present and future organizational patterns and administrative procedures and in research designed to provide more effective administration of public health programmes.

Post-graduate education in public health should include preparation for the design of experiments and the evaluation of administrative procedures, and the opportunity to develop and participate in community-based research of this type. It is one of the most important responsibilities of the school of public health to prepare the student for a continuing study of administrative practices and their evaluation.

It is the considered opinion of this Committee that carefully planned and supervised research on the part of the post-graduate student of public health is not only a most valuable educational technique, but of vital importance to continued progress in public health administration. The schools of public health should devise methods of evaluation and of training students in this form of research.

Exchange of information on this type of research carried out by the schools of public health would be of value.

8. ADMISSION REQUIREMENTS IN RELATION TO THE DIFFERENT BACKGROUNDS OF FOREIGN STUDENTS

The Committee considered the many complex problems created for the schools by the different level in basic preparation of students from different countries. Admission requirements are usually established to meet the needs of the nationals of the country concerned. On the other hand, the schools do recognize their duty and responsibility to co-operate in raising the standards of health in other countries by providing training not available in those countries.

In order to avoid debarring foreigners (i.e., those who have the formal qualifications but perhaps not all of the detailed requirements insisted upon for nationals) from admission to a post-graduate course and degree, it is necessary that the universities continue to make exceptions. Such students, once admitted, must, however, comply with the level of performance required by the standards of the school for obtaining the degree. Some form of attestation is desirable for those who have done satisfactory work but have been unable to meet the requirements.

Regarding age limit no general recommendation was thought advisable and the matter was left to the judgement of the country, the agency and the school.

9. DEVELOPING WORLD-WIDE MINIMUM REQUIREMENTS OR GENERAL GUIDE-LINES FOR POST-GRADUATE PUBLIC HEALTH TRAINING

Improvement in the preparation of foreign students for health work is dependent upon the development of general guide-lines which may help the health administrations, the schools and the international agencies in raising educational standards throughout the world.

In considering the subject, the Committee examined the suggested basic requirements for a school of public health as incorporated in the report of the first session of the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel.¹ The Committee noticed that some of the points covered in the suggested requirements had been partially discussed at the present meeting—for instance, the field practice areas and the programme of instruction.

In view of the advances made in the field of health and education since 1949, when that report was prepared, the Committee deems it necessary to recommend that a revised comprehensive text of minimum requirements for schools of public health be developed at the earliest possible date with active participation of all concerned.

To this effect the Committee suggests that WHO undertake, with the co-operation of the schools and national health administrations, to study the present development of the schools of public health and the degree to which they are meeting the world needs for health personnel.

Following such a study the Committee recommends that detailed proposed standards of minimum requirements for schools of public health be prepared and discussed at an appropriate meeting. These, if agreed, will be of undoubted value in assessing the present schools and in providing guidance for the establishment of new ones.

¹ *Wld Hlth Org. techn. Rep. Ser.*, 1950, 22, 31

Annex 1

SOME RELEVANT WHO AND LEAGUE
OF NATIONS PUBLICATIONS

- Conference on Public Health Training of General Practitioners. Report. *Wld Hlth Org. techn. Rep. Ser.*, 1957, 140
- Expert Committee on Environmental Sanitation. Second report. *Wld Hlth Org. techn. Rep. Ser.*, 1952, 47
- Expert Committee on Nursing. Second report. *Wld Hlth Org. techn. Rep. Ser.*, 1952, 49
- Expert Committee on Organization of Medical Care. First report (The role of hospitals in programmes of community health protection). *Wld Hlth Org. techn. Rep. Ser.*, 1957, 122
- Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Report on the first session (especially Annex 2, Suggested basic requirements for a school of public health). *Wld Hlth Org. techn. Rep. Ser.*, 1950, 22
- Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Second report (Meeting of experts in undergraduate medical education). *Wld Hlth Org. techn. Rep. Ser.*, 1953, 69
- Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Third report (Training of auxiliary health workers). *Wld Hlth Org. techn. Rep. Ser.*, 1956, 109
- Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Fourth report (Post-graduate training in the public health aspects of nuclear energy). *Wld Hlth Org. techn. Rep. Ser.*, 1958, 154
- Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Fifth report (The introduction of radiation medicine into the undergraduate curriculum). *Wld Hlth Org. techn. Rep. Ser.*, 1958, 155
- Expert Committee on Public Health Administration. Second report (Methodology of planning an integrated health programme for rural areas). *Wld Hlth Org. techn. Rep. Ser.*, 1954, 83
- Expert Committee on Training of Health Personnel in Health Education of the Public. Report. *Wld Hlth Org. techn. Rep. Ser.*, 1958, 156
- Fourth World Health Assembly. Technical discussions on the education and training of medical and public health personnel. *Chron. Wld Hlth Org.*, 1951, 5, 287
- Grundy, F. & Mackintosh, J. M. (1957) *The teaching of hygiene and public health in Europe. A review of trends in undergraduate and post-graduate education in nineteen countries*, Geneva (*Wld Hlth Org. Monogr. Ser.*, No. 34)
- Report on the meeting of directors of institutes and schools of hygiene, Geneva, 22-27 November 1937. *Bull. Hlth Org. L.o.N.*, 1938, 2, 169
- Second general report on certain European schools and institutes of hygiene. *Bull. Hlth Org. L.o.N.*, 1938, 2, 191
- Study Group on Paediatric Education. Report. *Wld Hlth Org. techn. Rep. Ser.*, 1957, 119
- Technical Conference on Resistance to Insecticides. *Chron. Wld Hlth Org.*, 1958, 12, 116

Annex 2**AN EXAMPLE * OF STANDARDS FOR THE ORGANIZATION AND OPERATION OF TEACHING COMMUNITY HEALTH CENTRES**

1. Health centres are the peripheral community institutions for housing the health care services. The latter may discharge functions of public health, curative or welfare services provided for the community, generally on a tax-supported basis. The centre may have one or more sub-units.

The community of a teaching community health centre is representative of the population as a whole throughout the country. The area conforms to an existing administrative unit of government so that pilot-plant results may be readily re-duplicated. The population is sufficiently large to be technically self-contained in order to keep down overhead costs; for instance, one epidemiologist with a competent ancillary staff serves the routine needs of a population of at least 250 000.

2. The services provided by the teaching community health centre conform to the legal requirements of the state, which budgets for these service activities on a state-wide *per capita* basis.

3. The university (or school of public health) is consulted with regard to the appointment of all teaching personnel; and any of the latter seconded from the university to the centre hold concurrent health department appointments, and *vice versa*. The director of the centre has the professional and educational qualifications necessary for his post. He is responsible to the university for the teaching functions of the centre and, if he is a university appointee, is responsible administratively to the health department.

4. The university has the right to nominate personnel to the centre and to institute services deemed requisite for satisfactory teaching and for research, subject to the approval of the department of health. However, the university is responsible for any budgetary requirements not provided for by the above-mentioned service budget.

5. The centre has an advisory board of seven, consisting of three members elected by the community, three selected from the services of the centre staff by their executive committee, and the professor of medical administration of the university, or the relevant professor of the school of public health. This board meets monthly to consider matters affecting

* As planned for one case

the centre, particularly in its community relationships. The board presents an annual report to the health department, to the mayor of the community and to the university, with such recommendations as seem desirable.

6. The health centre has a weekly executive board meeting to deal with the administration of the centre. Its membership includes the medical director of the centre, a representative from the health department and a representative from each of the major fields in the centre. Its duties are to deal with the administrative routine of the centre and to submit an annual budget through its advisory committee for transmission to the university and to the health department.

7. The preparation of routine procedures and manuals for public health is the responsibility of chiefs of corresponding fields in the university department of public health or the school of public health, and, where indicated, the preparation of clinical manuals is the responsibility of the clinical chiefs of medicine, surgery, paediatrics and obstetrics of the medical school. The same applies to welfare if there is a school of social work, otherwise this is the responsibility of the department of welfare in the state government.

8. The university provides a satisfactory ratio of preceptors to students at the centre, according to standards established in terms of the number of students and the discipline in question.

9. The most important committee of the centre is on training and research, constituted by a representative from each of the disciplines being taught. This committee has the over-all supervision for any programme of instruction at the centre.

10. The centre keeps adequate records.

11. The centre is, preferably, contiguous to the public health department, hospital or medical centre of the area. It has adequate seminar rooms for its teaching load.

12. There are advantages in having the centre constitute a unit in a system of hospital and medical care regionalization, for which it serves as a planning and research laboratory.

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