## PAN AMERICAN HEALTH ORGANIZATION

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# RESEARCH TRAINING AND MEDICAL EDUCATION

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PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
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#### RESEARCH TRAINING AND MEDICAL EDUCATION\*

The PAHO Advisory Committee on Medical Research considered during its first meeting the report by the Regional Advisor in Medical Education (RESI/14) in which particular emphasis was placed on the need for the training of investigators in the medical and health sciences. The steps since taken by PAHO in implementing the recommendations made by the Committee are reported herein.

### Research Training

The PAHO/ACMR recognized that "the single most important handicap to the advance of research in the medical and other health sciences in Latin America lies in the shortage of trained specialists at all levels."

For this reason a project was designed to develop permanent institutional resources for research training and exchange of research personnel in the health sciences in Latin America. This is in essence a program of graduate education oriented towards the development and strengthening of institutional resources which over the years will sustain and develop the Latin American potential for those research activities designed to solve regional health problems and upgrade the participation of Latin America in the world community of health sciences.

The program is based on the fact that there are a number of institutions in Latin America that carry out research work of first quality. Some of these institutions offer training facilities although

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very few have formal academic programs for graduate or postgraduate training leading to a degree. Strengthening of these existing institutional resources would certainly accelerate and expand the development of research activities. The aims of the program are:

- l. To enable professional and technical personnel in the health field to acquire broad experience in research through a period of training in research centers in Latin America.
- 2. To enable selected senior scientists to further their research experience in Latin America or elsewhere.
- 3. To stimulate a profitable exchange of investigators in the Americas.
  - 4. To promote an active exchange of research information.

The program envisions the strengthening of already established research institutions in Latin America for the purpose of initiating or expanding an active program to promote and encourage research training in broad fields of the biomedical sciences that are considered of major importance for meeting present and foreseeable needs.

Physicians and other health personnel, primarily members of the faculties of medical schools, dental schools or schools of veterinary medicine and from faculties of science, will receive research training grants enabling them to participate actively in selected research projects.

The affiliation between a research training institution and other research and educational institutions, whether in the same area or in other parts of the world, would be encouraged in order to maximize the use of available resources, and to stimulate exchange of research information and skills.

Within this program, consultant services would be given by carefully selected qualified scientists and provision would be made for supplies and equipment to intensify the productive work of the centers.

Assistance to libraries would be provided so that investigators would have adequate sources of information to keep abreast of
scientific advances. Provision for publication of research findings
in Spanish and Portuguese would be made. Seminars and other meetings
would be organized to give the investigators the opportunity to discuss their data.

Two categories of candidates can be identified for this training program. The first is the senior research worker who has already proven his ability by successfully completing and publishing significant research. The object of giving him further training is to stimulate his fuller development and leadership in medical research. The second is the junior research student recently graduated, who has limited or no experience in research but who has apparent promising research capacity and should be given the chance to show whether he can develop into an investigator. The two types can conveniently be distinguished as senior research scholars and junior research graduate students.

Special research training grants will also be considered to enable an established investigator of proven ability to pursue a particular study related to his work such as the acquisition of a skill in special techniques. The study period will usually not exceed three months.

Provisions would be made for the maximum utilization of the investigator upon return to his country, by assurance of a stable academic position adequately remunerated and by providing him financial assistance to continue his research endeavors.

The following fields in which training will be offered are considered basic and of primary importance: pathology, epidemiology, microbiology, physiological sciences (physiology, biochemistry, pharmacology, and biophysics), statistics and bio-social sciences dealing mainly with the economics and social anthropology of health and disease.

A committee formed by representatives of the PAHO Advisory

Committee on Medical Research and collaborating agencies will

determine the institutions where the centers would be located.

This decision will be based on the following factors:

- a) Quality of research that is carried out at the institutions.
- b) Interest of the institution in developing a center for research training and willingness to commit itself to a permanent program after the outside assistance phases out.
- c) Availability and dedication of faculty to assist in the training program.

d) Physical facilities, teaching and laboratory equipment, and library resources.

The training period at the centers would usually be of two years' duration but the length of training would be decided on the basis of the scientific maturity of the candidate. In any event, the period should not be less than one year or more than three.

The trainees coming to the centers would be involved in a specific research project. The junior research students would also receive formal academic instruction in various subjects that will help them in the study of disease phenomena as part of a general biological problem of population interactions and to acquire a broader concept of health problems and of man and his relations to the environment.

University affiliation of the training centers would be desirable in order that eventually they may recommend their trainees for a graduate degree.

During the first year of the project the institutions where the training centers would be located would receive assistance in the form of advisory services by consultants and equipment for teaching and research when indicated.

Financial assistance for the buying of books and scientific journals would also be awarded to each institution where a center is located.

Traineeships would be awarded only to those investigators who commit themselves to return at the end of the training period to their country and to the institution from which they came, and

to continue working in research and teaching. Only those research institutions that make a commitment to appoint the trainees when they complete their work and to provide them with needed technical assistance would be eligible. The trainees would be nominated by existing research institutions in Latin America. The final decision for award would be made at PAHO Headquarters by an ad hoc committee on selection designated by the Director of PASB.

Consultant services are contemplated to assist in the assessment of the institution where the centers would be located, determining the needs for the proper functioning of the centers, selection of trainees and actually assisting in the training program. Short term consultantships would be used for the exchange of investigators among various institutions. The program is currently planned for a four year period.

#### Medical Education

The following steps have been taken by PAHO in the field of research in medical education.

Medical education is acquiring a new dimension. There is now general agreement (Charter of Punta del Este, The Alliance for Progress, and the Task Force on Health at the Ministerial Level) on the need for each country to prepare a national health plan for the next decade as a long-range measure that will ensure the orderly development of activities for the protection, promotion and restoration of health.

In view of this, it is essential to determine the needs and demands for physicians in Latin America and to examine the capabilities of present medical education programs to satisfy these needs. Under these circumstances medical education should be analyzed not as an end in itself but as a method, a tool, a dynamic process oriented to precise objectives.

All this led the Pan American Health Organization to the formulation of a research project to study the problem of estimating physician needs in Latin America taking into consideration the social and economic development of the region as well as the changing patterns for the provision of health services. The existing medical education programs would be assessed within this framework. It has been estimated that a pilot study of this type could be completed in two years' time.

The study will be preceded by a round-table conference to design the research approach to the problem, the methodologies to be used and to define the various aspects, emphases and parameters of the study.

For conducting the study itself it would be necessary to limit it to manageable proportions along the lines suggested above and to develop a sound methodology. It is proposed that the study be carried out in four selected countries or group of countries by local teams of medical educators and public health officers with the advisory services of outside short-term consultants. As these pilot studies show successful results, other countries can be

encouraged to undertake similar studies with such assistance as is necessary and can be mobilized.

The entire study would be planned, coordinated and supervised by the Pan American Health Organization in collaboration with officers of the Milbank Memorial Fund.

The selection of the countries or group of countries for the study would be made on the basis of current information collected by the PAHO through various research and educational surveys, personal visits and correspondence.

The study would last 18 months and would be closed by a second round table conference to evaluate the methodology used and problems encountered in its use, to analyze data and findings and to formulate conclusions and recommendations.

Negotiations have been held with officers of the Milbank
Memorial Fund for collaboration in the financing of the project.
The Milbank Memorial Fund has agreed to provide financial assistance for the first stage of the program and has expressed its desire for continuing collaboration in the project.

The proposed Round Table Planning Conference will be held in New York City from September 30 to October 4, 1963. A small group of eight scientists from various countries of the Hemisphere, experts in the fields of medical education, public health administration, sociology and economics are being invited as participants to the meeting. Representatives of major national and international institutions and foundations interested in medical education in Latin America will be included for discussion and information purposes.

A Medical Education and Research Training unit has been established within the Office of Research Coordination. This unit will promote and coordinate PAHO research training activities, and assist medical schools in the planning and development of their educational programs.