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REGIONAL COOPERATION IN HEALTH EDUCATION: THE SEAMEO-TROPMED PROJECT

by

Paul F. Basch

Department of Family, Community and Preventive Medicine
Stanford University School of Medicine
Stanford, California 94305, U.S.A.

INTRODUCTION

A workable model for regional international cooperation in health education should have great appeal in many developing areas of the world. One possible format consists of a coordinated, continuing programme undertaken by mutual agreement among a group of neighboring countries, each of which develops a centre for teaching of a particular health specialization. Postgraduate level training courses, offered annually at each such centre, are attended by participants from all participating nations. Benefits of such an arrangement may accrue primarily in three areas: financial, educational, and (for want of a better term) psychological.

Financially, there are obvious economies arising from avoidance of duplication of specialized and expensive training facilities, and of the need to send candidates to distant and costly Western countries. Educational advantages arise in part because teaching can be directed towards specific regional problems, providing an immediacy and relevance not readily apparent in foreign training. Moreover, specialized faculty skills may be augmented through the stimulation of advancedlevel teaching, and accumulated experience in presenting a particular topic over the years can result in emergence of true regional centres of excellence. Physcological benefits, although perhaps

less tangible, are nonetheless clear: among adjacent countries cooperating networks of professionals develop, well known to each other, and appreciative of one another's situations. The infrastructure of coordinated national centres may be utilized as a framework for regional conferences or other activities. Regional pride, independence and self-reliance are stimulated by successful local operation of complex programmes. There may, of course, be drawbacks to such a plan, as with any programme of international scope and long duration involving large numbers of people in a difficult and challenging enterprise.

The SEAMEO-TROPMED programme, described below, offers a functioning model of such an international cooperative scheme. The experience gained in its years of operation may be of intense interest to others, particularly if it can be shown that the programme has operated successfully. Therefore I undertook an exploration of SEAMEO-TROPMED in mid-1974 with the aid of a travelling fellowship from the World Health Organization. The following locations were visited: the headquarters at the Central Coordinating Board (CCB) and the Thai National Centre in Bangkok; and National Centres in Malaysia, Singapore, Indonesia, the Philippines, and South Vietnam. Two countries included in the plan, Laos and the Khmer Republic, were not visited.

Southeast Asia as a Region

Southeast Asia may seem an unexpected region in which to nurture a pioneering programme of international cooperation. Between most of the countries there are differences in language, religion, and customs, in legal, educational and political systems, largely induced during recent centuries by the colonial regimes of the United Kingdom, the Netherlands, France, Portugal, Spain, and the United States. Yet the civilizations of this region are among

the most ancient and profound known on earth. The same tortuous geography that dissects the area into continent, peninsula, and archipelagoes has, since earliest times, also provided routes of trade and communication. Centered upon the Straits of Malacca and other major maritime highways, the interconnected seas and rivers of the region have fostered dissemination of goods and ideas for many centuries. Old indigenous empires such as Ayudhya, Angkor, Srivijaya and Majapahit were well known as centres of culture. In this region the westbound riches of the Far East and the spice islands encountered the flow of ideas, of Buddhism and Hinduism, later of Islam and Christianity in their generally eastward movement. Strong ties of culture and tradition and in many cases of common blood link most of the countries of southeast Asia into a natural region discernible through the veneer of mid-twentieth centure diversity. Current events cannot, of course, be ignored: the emergence in recent decades of blocs of opposing political ideologies has served to aggregate nations of the area into various treaty groups having certain common goals and outlooks.

The land area of the eight participating countries totals about 1.25 million square miles, and the combined population approximately 235 million people. The density of population on the limited land is very high when compared, for instance, to South America (6.8 million square miles, 185 million people) or Africa (11.5 million square miles, 345 million people). Effective distances in the region are often great, owing to the presence of the South China Sea and adjacent waters, so that a line drawn around the countries would circumscribe an area roughly equal to that of South America.

History of the SEAMEO TROPMED Project

In November, 1965, during a conference sponsored by UNESCO, a number of Ministers of Education of Southeast Asia met privately to consider the establishment of a regional organization to promote cooperation in education, science and culture. The Ministers of Education of Laos, Malaysia, Philippines, Singapore, South Vietnam and Thailand received encouragement from Mr. Eugene R. Black of the United States of America, who met with them in the role of Special Advisor to President Lyndon B.Johnson on Asian Development programmes. Following this meeting the Southeast Asia Ministers of Education Organization (SEAMEO) and its Secretariat (SEAMES), were developed with an interim office established in temporary quarters at the Ministry of Education of Thailand, Bangkok, on November 30, 1965.

Various suggestions for cooperative projects were made at the initial SEAMES meeting, including one for the establishment of a Regional Centre for research and training in tropical medicine. A Task Force committee empowered to look into this matter submitted its Report and Recommendation to the Director of SEAMES in September, 1966. The Task Force included members from Malaysia, Philippines, Thailand and South Vietnam, together with consultants from the United Kingdom and the United States. Their initial recommendations proposed the establishment, not of a single centre, but of a Central Coordinating Board to plan regional programmes to be implemented through existing National Tropical Medicine Centres, one in each of the regional countries represented on the Task Force. The following functions were assigned to the CCB: 1) to correlate the regional activities of the four National Tropical Medicine Centres; 2) to make joint approaches for aid and co-operation with other national and international organizations; 3) to serve as a clearing house to catalogue, publish and translate into English information concerning

the activities of this region in order to disseminate knowledge in tropical medicine to all institutions and agencies, not only in this area but also to other centres in the world; 4) to act as an agency for the exchange of scientists and students between various institutions; 5) to help organize conferences, seminars and instructional courses concerning medicine and health.

These recommendations were submitted to the Second Conference of the Southeast Asia Ministers of Education Council (SEAMEC) in Manila in late 1966 at which the establishment of the CCB in Bangkok, and the concept of National Centres were endorsed by the Council. At that time Indonesia proposed an additional National Centre in Jakarta, raising the number of participants to five. Subsequently, Laos, the Philippines, Singapore and the Khmer Republic also joined the programme. The first meeting of the CCB was held in Bangkok in March, 1967 to plan subsequent operations and approve the initial year's budget. A few months later the first teaching course under SEAMEO sponsorship was offered: the Diploma in Tropical Medicine and Hygiene (DTM & H) in Bangkok. Other regional courses followed quickly, as described below.

The stated objective of the Regional Tropical Medicine and Public Health Project is to improve the health and standard of living of the peoples of Southeast Asia through programmes designed to control and/or eradicate endemic tropical diseases.

The designation of "SEAMEO Regional Tropical Medicine and Public Health Project (TROPMED)" was officially adopted at the fifth CCB meeting in November, 1968. Since its inception major activities of TROPMED have reached into many fields including the following:

1. Regional Teaching Programmes
2. Research grants, primarily for training of younger workers in research methodology.
3. Regional Seminars and Workshops organized to discuss specific health problems. More than 15 such meetings have been held to date.
4. Exchange of personnel among scientists within the region to encourage broader acquaintance with regional problems. More than 130 such exchange grants have been awarded.
5. Publication of "Southeast Asia Journal of Tropical Medicine and Public Health", a quarterly journal started in March, 1970, and also of the proceedings of the seminars, etc.

The current (September, 1974) arrangement of the SEAMEO-TROPMED project is shown in the accompanying diagram (Appendix 3).

Activities of SEAMEO are by no means limited to TROPMED, which is but one of seven active regional activities. The other SEAMEO programmes, each housed in a single centre for the region, are:

BIOTROP (Regional Centre for Tropical Biology) Bogor, Indonesia

INNOTECH (Regional Centre for Educational Innovation and Technology) Saigon, South Vietnam.

RECSAM (Regional Centre for Education in Science and Mathematics) Penang, Malaysia.

RELC (Regional English Language Centre) Singapore

SEARCA (Southeast Asia Regional Centre for Agriculture) Los Banos, Philippines.

ARCAFA (Applied Research Centre for Archeology and Fine Arts) Phnom Penh, Khmer Republic.

Funding of the SEAMEO operation involves three main categories:

1. The Secretariat (SEAMES) receives its annual operating funds from member countries allocated according to a formula based on the Asian Development Bank (ADB) index.

2. The host country of each Project Centre accepts primary responsibility for the capital and operational costs of the Centre. Under an agreement with the United States Government (USG), half of these costs are provided by grants from the Agency for International Development (AID) for the initial five years of permanent operations. In the case of TROPMED this period extended from July, 1970 to June, 1975. Before starting permanent operations (during project development and interim operational phases) each project was aided by grants from the USG on a non-matching basis. Assistance in the physical development of most National Centres has come from the USG in the form of equipment, furniture, library materials, etc. of a value equal to the locally-borne cost of the basic capital construction.

3. Special Funds are provided for certain costs such as scholarships, research grants, personnel exchanges, board meetings, seminars and conferences. These funds are raised primarily by SEAMES for all programme areas in coordination with Project Directors and others. The USG assists in these efforts by providing half of such costs for each project during its first five years of permanent operations. In addition to funds from participating governments, non-USG external support has come from interested governments in Europe and Asia, primarily in the form of scholarships and equipment. Private industry and international organizations have also assisted with special funds.

With effect from June, 1975 full operational costs of the CCB and the various TROPMED National Centres are the responsibility of member governments; outside donors are always encourage to participate. The USG component may continue at a reduced level in certain of the Special Funds areas.

Operation of the TROPMED National Centres

The National Centres are located at institutions designated by their respective governments as the cooperating unit in the TROPMED programme. The regional specialization of each National Centre is agreed upon at the CCB level and normally is the area or subject of greatest strength in the designated national institution. Each Centre prepares and submits a Development Plan for discussion and adoption by the Board. In the field of the regional specialization each Centre carries out training, research, and clearing house functions for the region, such activities normally being integrated into the national programme operated by the Centre. Priority attention is given to training in order to meet the manpower needs of the region.

A specific proposal for the regional teaching course is also prepared, including the following aspects: purposes; staff (local and visiting); facilities; detailed curriculum; training plans (lecture, seminar, laboratory, field work, clinical observation, etc.); costs; intended participants and eligibility; duration; proposed starting date; degree or diploma to be awarded, etc. This is discussed at length before board approval.

Host governments have primary responsibility for provision of space, facilities, staff, and operating costs of the National Centres. As mentioned, the USG has during the initial 5 year permanent operating period provided equipment and other items to help each Centre assume its regional role. Subsequent operational costs are to be provided by the host government or outside donors.

The CCB after the initial 5 year period is to be funded by equal contributions from each of the six governments hosting National Centres with smaller amounts from the two other member countries.

The Teaching Programmes

The qualifications needed by course participants, such as education, work experience and language ability may be determined by the Course Director or Committee of the National Centre involved. Candidates are proposed by their home governments, with the stated qualifications in view, and are officially accepted by the host National Centre.

Patricipants receive round trip economy class air fare from their home to the host centre, together with monthly stipends for living costs and a book allowance. Other benefits may include provision for medical care or other insurances during the period of the course at the discretion of the National Centre. The host government generally reserves for its own nationals several places, depending upon the size of the class. These local participants usually receive partial stipends, e.g., four scholarships may be divided among six persons.

Scholarships for the training courses are provided from SEAMES special funds which are allocated through the CCB to the National Centres in accordance with the number of accepted SEAMEO-TROPMED trainees. If places are available each National Centre may accept other course participants in addition to the SEAMEO scholars nominated by their home governments as described above. Such additional candidates have received support from governments outside the region, from international agencies such as the World Health Organization, or from foundations, and some have enrolled as private paying students. Each national Centre has a different character, and it is necessary

to describe them separately.

Thailand National Centre: Faculty of Tropical Medicine, Mahidol University, Bangkok.

Diploma offered: Diploma in Tropical Medicine and Hygiene (DTM & H)

TROPMED course started: 1967, as a SEAMEO-TROPMED course. A similar course was offered from 1960 to 1966 in Thai language.

Number of students: Currently 38 to 40

Length of course: 6 months.

Eligibility: Open to persons holding the Degree of Bachelor or Doctor of Medicine.

Description: A six-month course of study adapted and developed for Southeast Asian conditions from the general DTM & H course of the University of Liverpool. Lectures, demonstration, laboratory study, clinical ward rounds, and field trips are included. The curriculum covers Tropical Medicine, Protozoology, Helminthology, Tropical Hygiene, Medical Entomology, Bacteriology, Immunology, etc.

Malaysia National Centre: Institute for Medical Research, Kuala Lumpur.

Diploma offered: Diploma in Applied Parasitology and Entomology (DAP & E)

TROPMED course started: 1970

Number of students. 14

Length of course: 6 months.

Eligibility: Open to medical, veterinary, or science graduates of approved universities.

Description: The curriculum is based largely on DAP & E courses from the United Kingdom emphasizing parasite and vector-borne diseases of man and domestic animals. Diseases occurring in Southeast Asia, such as malaria,

filariasis, amoebiasis, intestinal helminthiasis, dengue and other arboviral infections are featured. Classes on causes, diagnosis, modes of transmission, control and prevention of such diseases. Intensive study of acarine and insect vectors, the use of insecticides and other control and eradication measures. Lecture, laboratory and field work. Each student carries out a special investigation and writes a report in the format of a research publication.

Singapore National Centre: Department of Social Medicine and Public Health, Faculty of Medicine, University of Singapore.

Degrees offered: M.Sc. (Public Health); M.Sc. (Occupational Medicine).

TROPMED course started: 1971 (D.P.H.); 1973 changed to M.Sc.

Number of students: about 20

Length of course: 10 months.

Eligibility: Open to persons holding medical qualifications with postgraduate experience of at least 2 years.

Description: M.Sc. (P.H.): An academic year course including (a) systematic instruction in Public Health, including historical, legal and administrative aspects, sanitation and hygiene; epidemiology and its biological and community relationships; data handling, health education, rehabilitation, etc.; (b) clinical instruction in infectious diseases over a period of 3 months; (c) practical demonstrations, exercises and field visits; and (d) writing of an approved dissertation.

M.Sc. (O.M.): An academic year course including (a) general preventive medicine, sanitation, epidemiology and biostatistics, health education and family planning; (b) occupational health - work physiology, industrial psychology, legislation, hygiene and safety, pollution control, ergonomics and

health services organization; (c) occupational medicine with accident prevention, toxicology, occupational diseases, disability evaluation, rehabilitation, etc; (d) clinical sessions, field visits and practical work, and (e) writing of an approved dissertation.

Indonesia National Centre: Faculty of Medicine, University of Indonesia, Jakarta.

Diploma offered: Diploma in Applied Nutrition (D.A.Nutr.) to be changed to M.Sc. degree in 1975-76.

TROPMED course started: 1970.

Number of students: 18 to 25.

Length of course: 10 months.

Eligibility: Open to persons possessing (a) basic degree in medicine or M.D., (b) graduates in science engaged in teaching or research in medical colleges in the departments of nutrition, biochemistry, physiology or related disciplines, or (c) scientific workers with a postgraduate degree or diploma and who have working experience in the Nutrition Departments of States and in research institutions.

Description: A joint project between the Medical Faculty, the Directorate of Nutrition of the Ministry of Health, the Agricultural Institute of Bogor, and the Socio-economic Faculties of the University of Indonesia. Divided into two 15-week semesters in Jakarta and a nine week period of field and practical training in Bogor. Lectures, laboratory sessions, clinical presentations and field work are conducted by several departments of the faculty of Medicine and other participating organizations. Subjects taught include food production, processing and marketing, basic and advanced nutrition, nutrition education, nutrition in the community, demography and family planning, survey methods, food policy, etc.

Philippines National Centre: Institute of Public Health, University of the Philippines, Manila.

Diploma and Degrees offered: Certificate in Public Health (CPH); Master of Public Health (MPH); Certificate in Hospital Administration (CHA) or Master of Science in Hygiene (M.S.Hyg.). Of the SEAMEO fellows until 1974, 6 foreign and 5 local have taken the CPH (no longer offered); 14 foreign and 12 local, the MPH; 1 foreign and 1 local, the CHA; and 2 foreign the M.S.Hyg.

TROPMED course started: 1968.

Number of students: about 22.

Length of course: (CPH), MPH, MHA, 1 year; M.S.Hyg., 2-3 years.

Eligibility: Open to graduates of approved medical schools, to dentists, engineers, health educators, nurses, veterinarians and others possessing at least a baccalaureate degree in science and at least one year of experience and/or training in public health.

Description: (MPH) A core of subjects including epidemiology, biostatistics, microbiology, parasitology, public health administration, engineering and nutrition, plus certain electives and either a thesis or comprehensive examination. The M.S. Hyg. is a longer program involving original research and a formal thesis.

Vietnam National Centre: Faculty of Medicine, University of Saigon, Saigon.

Diploma offered: Diploma in Tropical Microbiology (D.T.Microb.)

TROPMED course started: 1973

Number of students: 15

Length of course: 6 months.

Eligibility: Open to medical, veterinary and science graduates of approved universities.

Description: Lectures, laboratory exercises, field trips, seminars and conferences, research practice and individual work are featured. Emphasis on etiology, diagnosis, survey, control and prevention of infectious diseases of public health importance in Southeast Asia. Major disease entities in the fields of bacteriology, virology and mycology are covered, as well as a short course in immunology. Specific theory and practical work is done on entero-bacterial infections including cholera; plague; venereal diseases, leptosporosis; melioidosis; anaerobic bacteria; mycobacteria; rickettsia; superficial and deep mycoses; arbo- and other viruses. The staff of the Institut Pasteur, Saigon, and the Ministry of Health, contribute significantly to the teaching of this course.

The National Centres of Laos (Central Laboratory for Public Health, Vientiane) and of the Khmer Republic (Monivong Hospital, do not have active TROPMED teaching programmes at present.

Of the six National Centres hosting TROPMED courses all except Kuala Lumpur are at universities. In Singapore and Manila, TROPMED students merge with the general student body, taking a programme of conventional classes, whereas at the other four centres the TROPMED course is a specially designed separate entity. In Bangkok, only qualified medical doctors are admitted; in most other courses about half of the participants are doctors, with the remainder comprising a variety of health-related occupations. In the Indonesian programme about two months is spent at a field project site in Bogor. The other courses are presented (except for brief field trips) at a single venue. In some centres instruction ceases early in the afternoon, in others it occupies the full day.

Some are presented by a single department or small faculty group while others have many and varied contributors. The courses make substantial use of external lecturers mostly from within the SEAMEO region, but also from the United Kingdom, United States, Japan, France, and elsewhere. The variation in these and other patterns of organization illustrates the flexibility of the total TROPMED program.

Interviews of Instructors and Course Graduates

In July and August, 1974, I spent two weeks in Bangkok and approximately a week at each of the other 5 active National Centres to observe the total TROPMED teaching programme, to meet the Course Directors and instructors, and to interview as many graduates as possible from all of the previous classes. The main purpose of this study was to investigate SEAMEO-TROPMED as a model with a view towards the possible establishment of similar regional efforts elsewhere in the world. Discussions and formal interviews were held with 107 persons (staff and graduates), often at the National Centre, but also at their places of work at many different localities. A list of these persons and institutions is appended to this report. It must be emphasized that the selection of persons to be interviewed was based largely on availability and no attempt was made to define a statistically valid random or representative sample of the total graduate population. Persons residing away from the cities visited were excluded, because travel to numerous localities was not possible during this trip. It is not known whether their responses would differ from those obtained. The opinions expressed to me were consistent from one city to another suggesting that differences in cultural outlooks in the various countries are not very important with respect to the subjects surveyed. About one quarter

of all course graduates were interviewed. Course graduates were queried about the following:

Title and duties in present position; other professional activities;

Title and duties in position before taking the TROPMED course;

Uses made of the material learned in the course;

Value of diploma or degree in improvement of position and/or salary; other uses of diploma or degree;

General relevance of course content; comments regarding presentation of course;

Living conditions while a participant, personal adjustment, adequacy of stipend and allowances; Continuing relationships with former course instructors or classmates on a professional or personal basis;

Ideas concerning regionalization and value of the regional approach;

Possible improvements in the course and adaptability of conditions elsewhere in the world;

Subjects of public health importance in Southeast Asia not included in any present courses;

Other comments and suggestions.

Following early discussions and observations at the CCB, a series of statements was developed to serve as a basis for the inverview, and respondents were asked whether they agree or disagree with each, or have any additional comments. One form of this "questionnaire" was prepared for graduates and another for course instructors, the two forms differing in 20 of the 50 statements. These statements may be found in the appendix. It was sometimes found inconvenient to use these prepared statements, and in later weeks the use of this format was reduced in favor of more open structured dialogue. Respondents were informed of the purpose of the study and of the confidentiality of their comments. An attempt was made to be neutral in the questioning, without suggesting responses,

but encouraging complete replies. A few persons were found to be rather shy and reluctant to offer criticism but all without exception were cordial, friendly, helpful and cooperative. The interviews usually occupied about half an hour, during which notes were taken in as much detail as possible for one untutored in secretarial skills. The observations presented below should not be considered as scientifically valid representations of the opinions of persons involved with the SEAMEO-TROPMED teaching programmes.

All Course Directors and many instructors were interviewed. Of this group, all appeared convinced of the utility of the regional cooperation scheme, seemed pleased to participate, and anticipated that their programmes would continue in the foreseeable future even if extraregional financial support were to be reduced. Whereas the concept of regional saving by pooling of resources was an obvious feature of the TROPMED programme, several Course Directors pointed out that they were thereby enable to offer a course for which they could not otherwise have obtained ehough local students. Thus some instructors could give advanced training in their own field of interest because a class of adequate size could now be assembled. Several persons mentioned that preparing for the TROPMED courses helps to keep the instructors abreast of developments in their fields, particularly so in those National Centres where the subject of the TROPMED course is not normally offered in that format. About one third of the Course Directors viewed the participation of their institution partly in political terms, as a contribution towards fulfillment of regional international obligations. All, however, felt that their institutions did benefit to some extent from the programme. A number of the senior teaching faculty at each Centre are sent, through the CCB, to present lectures at other TROPMED courses, thereby gaining familiarity with other medical institutions in the region. Several cooperative research programmes have resulted from

such exchanges, usually with younger staff members at the receiving institutions who are thus stimulated professionally and feel less isolated in their field of specialization.

Arrangements with regard to local teaching staff vary from Centre to Centre. The permanent staff are generally not paid extra for participation in the teaching, this being considered a part of their normal duties. No objections have come to my attention at any University-based National Centre. In some cases, small honoraria are offered to local lecturers coming from other institutions for the sole purpose of contributing to the teaching. Overseas lecturers usually bring their own external support for stipend and travel, the host country underwriting items of hospitality. In several SEAMEO member countries it is usual for medical school faculty members to have private medical practices in late afternoons and evenings, thus limiting their participation in overnight field trips or other activities. In at least one Centre, such persons may be compensated for loss of income if they accompany the class on longer trips.

Commenting upon the course participants, most Directors and instructors are satisfied with the overall calibre of students send from overseas. One recurrent theme mentioned by all Directors was the inadequacy of some candidates in the English language. Several students have had to withdraw from class for this sole reason, and greater care in selection of candidates by the home country is strongly suggested. Several Directors remarked upon the age of participants, feeling that an upper age limit might well be instituted. Some older persons have been sent as students, to the discomfort of some of the teaching staff.

The responses of graduates, coming from six different countries and referring to six different courses, are difficult to summarize. In general, however, they are satisfied with the programme.

Almost all of the graduates whom I saw are in government service, mostly in the same, or similar, position to that held prior to taking the SEAMEO-TROPMED course. There was only one person whom I tried to find who had left scientific work, for personal reasons. The majority of interviewed graduates are associated with educational institutions as instructors or as support personnel who also participate in laboratory teaching. Those at hospitals or research institutes often help in teaching of medical students or laboratory technicians. Almost without exception the information acquired in the TROPMED course is utilized in daily work, and in the teaching of others. Many of the physicians and other doctoral-level persons looked upon their TROPMED course in part as a "refresher", but all said that they had personally benefited from the instruction. Several of the professional-level graduates had been stimulated by their course to begin research projects, and in a few cases, significant changes in professional orientation and activities had resulted directly from the courses.

Most graduates found the teaching adequate and the majority of instructors to be interested, competent and up to date. Difficulty with English language was cited by graduates for a few instructors at certain Centres, but in general this was not a great problem. Students liked and appreciated lectures by visiting and expatriate staff, often commenting upon the advantages of dealing with "real experts" in their subjects. Most respondents felt, however, that local staffs alone could if necessary offer an adequate course. A number of graduates felt that in some courses too frequent examinations

detracted from the graduate-level atmosphere, while others cited examinations as good stimulus for work and review. The common practice of awarding a prize to the best student was often criticized as divisive, detracting from the cooperative atmosphere or leading to unpleasant competition.

Many respondents especially liked field work, and the practical training in all classes was repeatedly mentioned. One or two courses were sometimes criticized as "too academic". Training in research methodology and preparation of reports and publications was particularly desired and appreciated.

The length of the courses was generally considered appropriate but when queried, more graduates would have preferred them longer, rather than shorter. Where instruction is given only for part of the day (to permit afternoon private practice for medically qualified instructors) some graduates become impatient with the pace and believed that the course could have been made more compact. In most courses, student opinion and comments were solicited, often by means of a questionnaire distributed at the end. Students in general appreciated this and most felt that their reactions were taken into account and acted upon to improve the course in subsequent years.

One comment frequently made was that the diplomas offered were of limited practical value. This was the greatest source of complaints about the entire teaching programme. In only a few cases, primarily to recipients of masters degrees, did the credential lead directly to a higher position or greater pay.

Some graduates of four of the courses felt that the time and energy invested by them should have resulted in a degree rather than a diploma. The problem of accreditation is well known to the Course Directors and CCB, and plans are being made to upgrade courses to the masters degree level. In

the Indonesia Centre, for instance, the D.A.Nutr. will give way to a M.Sc. in 1975. One graduate with doctoral-level qualifications felt it somewhat degrading to receive a mere diploma, but this sentiment was not shared by others. While the diplomas usually did not yield immediate professional and economic benefits, they were nevertheless used in many ways. Staff rosters of most institutions listed persons with their full professional qualifications including the SEAMEO degree or diploma. The private calling or business cards of graduates usually include the TROPMED credential, along with others, after the name, and in several offices and clinics I saw the framed diplomas upon the wall. A number of medical doctors having private practices feel that the credential confers prestige with colleagues and patients. Several persons, particularly on the senior technical level, expect their SEAMEO-TROPMED diploma to count for advanced standing towards a planned higher degree by reducing the time or number of classes to be taken, and some feel that the diploma will help to obtain further scholarships for study abroad. In a number of cases the diploma or degree helped materially to obtain a second job at another institution, most commonly a private medical school. The credential provides additional "credit points", where such a system is in use. Despite these specific applications, most respondents believe that the diploma or degree, while not producing any clear or obvious benefit, is nevertheless a worthwhile thing to have that may be more useful in the future. It seems commonly believed by graduates in each country that participants from other countries gain immediate advantages from the TROPMED credential, but that their own government is slow or ungenerous in granting financial rewards.

In many member countries a bonding arrangement exists such that recipients of TROPMED scholarships must thereafter work for their governments for a certain number of years. Generally this agreement was readily accepted because most respondents, particularly at higher technical levels, had no other plans. In a few cases the arrangement was resented by more ambitious candidates who felt that an obligation of this type was worth assuming for a degree program in a Western country but not for a TROPMED diploma program. Such comments were only rarely heard.

The great majority of participants received study leave with full salary from their work plus the scholarship stipend and transportation so that there was usually no significant financial sacrifice to obtain the diploma ordegree. Several persons, particularly single women, reported saving some money overall while others found it necessary to supplement their stipend allowances from other sources. The particular time and place were significant in this regard, for in several countries a substantial reduction in the exchange rate has occurred vis-a-vis the United States dollar (in which allowances are paid). This, coupled with inflation, has reduced purchasing power to such an extent that several groups have petitioned the CCB for higher allowances. Medical practitioners going abroad for extended periods commonly lost many of their private patients, with a consequent financial loss for some time after returning until their practice built up once more. In most such cases, colleagues or relatives helped to take over the practice on a fee-sharing basis during the practitioners' absence thereby reducing the financial impact. In one case a TROPMED student gave up a hospital appointment on his departure and waited more than a year after his return to regain a similar position. On the average, however, it appears that participation in the SEAMEO-TROPMED

courses has resulted in neither great financial hardship nor great benefits.

A variety of living arrangements is adopted by the students during the courses. Very few take their wives or family along. Most share flats or hotel rooms with other TROPMED participants. In some countries the students are housed in dormitories or hostels or all together in private facilities. Some graduates objected to such accommodiation, particularly when required by the host country to reside in a certain place. Cited were distance from the Centre, lack of adequate transportation, poor food, and the belief that they could have "done better" or found lower cost accommodations on their own. This question is a difficult one for Course Directors and deserves consideration. Most participants, however, had no complaints in this regard. In some cases personal difficulties arose through the sudden change to 1) classes in English, plus 2) living in yet another foreign language, but there were surprisingly few severe problems in this regard. Many persons mentioned the help given by classmates, particularly local nationals, in adjusting to the experience abroad.

Most students believed provisions for sickness and accident to be adequate. The unfortunate incapacitation and death of one foreign participant in 1973 (from a pre-existing chronic heart condition) and several instances of hospitalization for illness or acident have emphasized the general need for prior physical examinations and suitable plans for emergency care. Several National Centres have had good student health plans for some time.

Enthusiasm was practically universal for the multi-national nature of the courses, almost all graduates taking pains to point out the benefits of knowing their colleagues in neighboring countries. Often mentioned were exchange of cultural and professional ideas and information. Students generally enjoyed life in the countries where they studied, and very few had unfavorable reactions

or did not like the food or atmosphere. Some respondents said that for personal or other reasons they did not wish to go to western countries for training and some just do not like to go far from their homes. One said that it doesn't make sense any more for persons to go far away for such courses and that it is much more efficient for a few instructors to come from the western countries to participate in local teaching in developing regions.

Most persons agreed that economic and cultural similarities do help define Southeast Asia as a discrete region. The advantage of the regional approach most often given was ability to concentrate upon certain specific diseases (dengue hemorrhagic fever was commonly mentioned) and conditions especially important in the area. Many physicians mentioned that clinical cases are usually unavailable abroad, and several persons cited the field trips that clearly could not be done in western countries. One respondent pointed out that persons returning from more "developed" countries may be unhappy because much of the accustomed sophisticated apparatus and equipment are unavailable locally. Thus the regional courses may help reduce the "brain drain" by keeping candidates within the area for some advanced training.

Disadvantages of the regional approach were stated as a lack of prestige in comparison with similar courses in Europe or America and inapplicability of some coursework. The colonial heritages of different member countries have caused graduates to feel that some teaching in both of the Public Health programs was not directly applicable to their home situations because of differences in organization of health services.

Despite the general enthusiasm over meeting and living alongside colleagues from different countries, rather few graduates actually maintain

communication with their former classmates. Almost everyone I spoke with wished to see a system whereby contacts could be sustained, most persons mentioning a newsletter but the one-time subscription fee was considered by some graduates to be too high. Several persons thought that class reunions at intervals would be good, but offered no suggestion for financing such meetings. Fewer than a half dozen graduates to whom I spoke have ever written back to their former instructors for assistance with some technical problem. However, many graduates are not at isolated locations and do have access to other specialists in their institutions.

When asked about the completeness of the overall TROPMED teaching program, more than half of the medically qualified graduates felt that the current group of courses satisfies all major needs for such a regional project. This question was posed: If there should be a new SEAMEO member country and a new National Centre is created, in what subject should it specialize? Again, most persons did not hazard an opinion, but the following suggestions were received, from one person each: Tuberculosis; Radiology; Pediatric Tropical Medicine; Venereal Diseases; Dermatology and Mycology; Clinical Infectious Diseases; additional training in General Practice; and Rehabilitation including Physical Therapy. Several persons suggested the need for a Centre specifically for health care systems planning, organization and administration.

Comments

As far as I could ascertain, most persons associated with the SEAMEO-TROPMED project appear satisfied with its progress and activities to date. The courses are considered helpful by almost all graduates, and other project activities are popular and well-received. It is far more difficult to assess

the project in terms of its stated goal "to improve the health and standard of living of the peoples of Southeast Asia through programmes designed to control and/or eradicate endemic tropical diseases". When challenged to demonstrate any actual improvements arising from the programme, all respondents states that a great deal of time will be needed before practical benefits can result. Since the "health and standard of living" of peoples is barely quantifiable under the best of conditions, it will be very hard to determine whether the project is approaching its goal. For purposes of realistic evaluation it may be better to restate more specific and more modest targets in readily assessable terms.

The effectiveness of teaching is difficult to define and even harder to measure. An evaluation of any programme of the type described here may view graduates in terms of specific knowledge and skills expected of them, which to some extent can be tested, but must also consider their judgment, commitment, and value orientations. Only after viewing the careers of many graduates over a period of time can a guess be made of the extent to which one particular course, among many others, has influenced subsequent behavior. It is furthermore not warranted to assume that graduates, by virtue of their enrollment in the TROPMED course, have acquired any particular power to develop and implement programmes or put their newfound ideas to work. The former participants are often inhibited by a lack of money and organizational restrictions. Participating governments should make an effort to expand the opportunities open to graduates in harmony with their increased capabilities, thus obtaining the best advantage from their own investment in these programmes. An additional factor to consider in overall assessment is the effect of the TROPMED course upon the personnel giving it and on the National

Centre itself. The TROPMED activities other than teaching (i.e., exchanges, seminars, workshops, research grants, and publications) must be worked into the equation because in many cases the same people and institutions are involved. The whole area of follow-up and evaluation may deserve more attention in the future as resources become increasingly stretched and the value of the project must be demonstrated to prospective new donors.

In association with continuing monitoring and follow-up of the project it would be advisable to establish some framework to maintain contracts among graduates and reinforce the international links established during the various TROPMED courses. Whether by newsletter, journal or other means, it would appear that a small expenditure in this area would be a good investment.

Besides the question of follow-up, another point often mentioned has been the selection of course participants. Course Directors should not feel uncomfortable about the candidates sent to them. Improved criteria for participant selection can readily be worked out at a CCB meeting so that both the sending and receiving governments are entirely in accord. Two TROPMED graduates, teachers at a private medical school, remarked that very few non-government employees are ever invited to participate in the courses or other TROPMED functions because the flow of information naturally goes through official channels. It may be advisable in some countries to review the contributions of the private sector to health care, and to make efforts to incorporate this group into the programmes. In order to obtain the greatest impact on health it would seem reasonable that the project operate from as broad a base as possible.

As a model of a cooperative system transferrable in other regions of the world, the SEAMEC-TROPMED project has much to offer. The different aspects

of the total programme - teaching, seminars, publication, and exchange - complement and reinforce each other to help produce an integrated, yet flexible system. The planning functions of the CCB have been carefully performed, with appropriate committees and task forces empowered to investigate each major increment in activities. It is of course a truism that any programme is only as good as its leadership, and in this respect the TROPMED project has been fortunate. The Secretary-General, CCB representatives, Course Directors, and member governments have from the start demonstrated a great willingness to cooperate, with a true regional international outlook. Communication within the group has been fostered by frequent meetings, and relationships with other SEAMEO projects, with national Ministers of Education and Health, and other official bodies, have been carefully developed, both within and outside the region. Financial support is of great importance and SEAMEO has had the prime advantage of genuine commitment in a spirit of cooperation by participating governments, plus generous assistance from the United States of America, and increasing support from other external donors. Other developing regions of the world who find such a programme attractive may possess within themselves sufficient resources to inaugurate a comparable scheme. If some outside development assistance is needed with initial operation, it is hoped that the SEAMEO-TROPMED experience will be useful in guiding early planning in conjunction with potential donor agencies.

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Appendix 1

Persons Interviewed, SEAMEO-TROPMED Programme, July-August 1974

Thailand

Name	Place of Interview
Dr. Chamlong Harinasuta	Faculty of Tropical Medicine,Mahidol University
Dr. Tranakchit Harinasuta	"
Dr. Tan Chongsuphajaisiddhi	"
Dr. Pramualmal Sucharit	"
Dr. Thayooth Chinatana	"
Dr. Manoon Bhaibulaya	"
Dr. Cherdlarp Vasuvat	"
Mr. Kamhaeng Surathint	"
Dr. Supat Sucharit	"
Dr. Panata Migasena	"
Dr. Savanat Tharavanij	"
Dr. Dannai Bunnag	"
Dr. Sricharoen Migasena	"
Dr. Pricha Charoenlarp	"
Dr. Pravan Suntharasamai	"
Miss Kanjana Jintakanon	"
Dr. Mukda Trisananonda	Siriraj Hospital
Mr. Chamrat Chulalapusapa	"
Dr. Lavan Mungmanee	"
Dr. Phisai Kraivichian	Chulalongkorn Hospital
Dr. Anond Pradatsundarasar	"

Dr. Banharn Laixuthai	SEATO Medical Research Laboratory
Laos (Seen in Bangkok)	
Dr. Sap Dejvongsa	Central Lab. for Public Health, Vientiane
Singapore	
Dr. W.O.Phoon	Faculty of Medicine,University of Singapore
Dr. W.K.Ng	"
Dr. Leong Hong Koon	"
Dr. Ivan Polunin	"
Mr. Tan Kia Koh	Vector Control Laboratory, Ayer Rajah Road
Dr. Francesca Tay	School Health Department, Singapore
Dr. Toh Kah Bee	Ban Tok Seng Hospital
Malaysia	
Dr. Bhagwan Singh	Institute for Medical Research
Dr. W.H.Cheong	"
Dr. David Weinman	"
Dr. George DeWitt	"
Mrs. Winnie Cheah	"
Dr. M.Jegathesan	"
Dr. Mak Joon Wah	"
Dr. Dora Tan	"
Mrs. Lai Peng Foon	"
Dr. Mohd Fadzil bin Haji Yahaya	Veterinary Research Institute, Ipoh
Dr. Ng Weng Cheong	Faculty of Medicine,University of Malaya
Dr. Harbachan Singh	Assunta Hospital, Petaling Jaya

Indonesia

Dr. Sjahriar Rasad	Faculty of Medicine, University of Indonesia
Dr. Sri Oemijati	"
Dr. Achmad Djaeni Sediaoetama	"
Dr. Sumilah Sastroamidjojo	"
Dr. Sunoto	"
Dr. Otty Widurini Sonityo	"
Mr. Herry Ilahude	"
Dr. Haroun Machfudin	"
Dr. Alishah Naoemar	"
Dr. Lukito Juwono	"
Dr. Soemarno A. Adjung	"
Mrs. Rumsah Rasad	"
Miss Rochida Rasidi	"
Dr. Iskandar Z.Azran	General Hospital, Intensive Coronary Care Unit
Dr. Mochter Hamzah	"
Dr. Samsuridjal Djauzi	"
Dr. P.M.H.Sinaga	Faculty of Public Health, University of Indonesia
Mrs. Tertia Hutabarat	"
Dr. Imran Lubis	National Public Health Laboratory, P4M
Dr. Salim Usman	Ministry of Health and W.H.O., P4M
Dr. Hilda Handjayani Liminata	Atmajaya University
Dr. Harry Chandrabuana	Rumah Sakit Palang Merah, Bogor
Dr. Darwin Karyadi	Nutrition Center Jalan Semboja, Bogor

Philippines	
Dr. Benjamin D.Cabrera	University of Philippines, Inst. of Pub. Hlth.
Dr. Amado P.Punsalang	"
Dr. Primo V.Arambulo	"
Miss Lucila B.Rabuco	"
Dr. Oscar L.Ramos	"
Miss Ester B.Ordinario	"
Miss Fe P.Tapales	"
Mrs. Susan P.Salenda	"
Miss Nidia M.Manuson	"
Miss Corazon de Castro	"
Dr. Luis Mayo Lao	University of Santo Tomas Medical School
Dr. Bienvenido D. Alora	"
Dr. Rosalio Najera	Philippine General Hospital CCHP
Dr. Carmen Banzon	City of Manila Health Department
Dr. Milagros Aprieto	"
Dr. Carmen Garcia	"
Dr. Elda Montemayor	Republic of Philippines Department of Labor
Dr. Leticia Matawaran	Far Eastern University
Dr. Aida Salcedo	Private Practice, Medical Center Manila
Dr. Benjamin Nolasco	San Lazaro Hospital, Manila
Dr. Onofre Buensuceso	Bureau of Research and Laboratories
Mr. Felipe Catagui	Malaria Eradication Program
Dr. Rodolfo Camacho	San Lazaro Hospital
Vietnam	
Dr. Vu Qui Dai	Faculty of Medicine, University of Saigon
Mrs. Le Thi Hieu	"

Miss Bo Kim Khanh	Faculty of Medicine, University of Saigon
Mrs. Nguyen Thi Vong	"
Mrs. Nguyen Hoang Oanh	"
Miss Duong Tuyet Nga	"
Dr. Thai Bon Vinh	"
Mr. Nguyen Ngoc Linh	"
Dr. Nguyen Ngoc Bich	"
Dr. Nguyen Ngoc Diep	"
Mr. Chan Duong Minh	Childrens' Hospital, Saigon
Dr. Pham Van Dien	Institut Pasteur, Saigon
Mrs. Tran Thi Monh Phuong	"
Mrs. Nguyen Thi Lien	"
Miss Trieu Ngoc Anh	"
Mrs. Le Thi Ty	"
Mr. Pham Ngoc Khue	"
Mr. Pham Ngoc Son	"
Dr. Va Van Giang	"

Appendix 2

Statements for Discussion

General

1. People in Europe and America do not really understand our health problems.
2. There should be a definite plan to keep up contacts between course graduates.
3. Programs like TROPMED, in Africa or Latin America, would greatly help the people living there.
4. Competition for medals and awards makes students work more.
5. It will take many years before the TROPMED course will have much real effect on health in my community.
6. Money spent on this course could be better used in other ways.
7. A very good library is needed for a post-graduate course.
8. Some students are selected for non-professional reasons and should not be sent.
9. The TROPMED students could not get equal training any place else at such a low cost
10. Students are/were generally satisfied with their living conditions.
11. Students are/were generally satisfied with the ability of the teaching staff.
12. Students are/were generally satisfied with equipment, materials and facilities for teaching study.
13. The number of students is too great.
14. The course is too long.
15. Plans for student health and emergencies and good.
16. Opinions of students are asked and acted upon to improve the course.
17. The basic problems of all developing countries in the world are the same.
18. I can demonstrate improvements in my country arising from this course.

19. The goals and purpose of the course are made clear to all students from the beginning.
20. Public relations and politics are important reasons for having the course.
21. A program such as SEAMEO-TROPMED stimulates regional pride and independence.
22. Most of the teaching staff enjoy giving the course.
23. Some instructors feel that they are kept away from research and publication because of this course.
24. Communication between the course director and teaching staff is good.
25. Good use is/was made of films and other teaching aids.
26. I feel that the certificate or diploma given is really not very useful.
27. The course is/was too academic and not very useful for practical work after students go home.
28. With this course in the region it is not necessary to go to Europe or America for such training.
29. Experience in the field is a very important part of the course.
30. Some students did not learn much because they already knew the subject before taking the course.

For Graduates Only

31. I was not given enough individual attention with the course work.
32. I would not have attended the course without a living allowance.
33. I wanted more informal and social contact with the instructors.
34. The course I took was really not as good as in Europe or America.
35. Since taking the course I am more stimulated to read and study by myself.
36. It was very bad to be away from my family for such a long time.
37. I wanted more training in writing reports and research papers.

38. After I returned home nobody seemed interested in what I had learned.
39. Since returning home I have consulted my former instructors about some technical problems in my work.
40. My professional satisfaction with my work is much better since taking the TROPMED Course.
41. The course director was interested in my personal adjustment outside of class.
42. Students were generally treated with sufficient respect.
43. The information I received about the course before going there was sufficient and correct.
44. I would strongly recommend others to take the same course.
45. The course has helped me to obtain a more responsible position and/or higher pay.
46. I still write to my former instructors as personal friends.
47. I still write to my former classmates from the course.
48. The course work is not relevant to my present position.
49. I have taught other people things I learned in the course.
50. I was able to express myself by telling others about my country, work and interests.

For Instructors Only

51. I would really prefer to give a course on a different subject.
52. We have done a good job in informing the public about our program.
53. Our local staff is capable of giving a good course without outside help.
54. The organized medical profession in my country has officially supported our participation in the SEAMEO-TROPMED teaching program.

55. I personally would like to spend more time on this course.

56. Local instructors should be paid extra for taking part in field trips.

57. It is good to receive students from other countries because we learn from them.

58. We do not have enough money to give the course that we would like.

59. If outside financial help were eliminated we would probably stop the course.

60. We should hire more people to do our routine work because of the demands of this course.

61. Our graduates usually achieve promotion, better pay and status because they have taken our course.

62. Poor English is a serious problem for some students.

63. Our course might well be given only once in every 2 or 3 years.

64. We still keep in touch with many graduates of former years.

65. Communication and coordination with the central headquarters (CCB) is good.

66. Coordination with the other TROPMED course teaching staffs is adequate.

67. Through giving this course we have gotten to know more people and organizations in our own country.

68. We feel that we do not have enough guidance in presenting this course.

69. We are restricted by unnecessary rules and regulations.

70. A program such as SEAMEO-TROPMED depends too much upon certain persons who are strong leaders.

Appendix 3

SEAMEO TROPICAL MEDICINE AND PUBLIC HEALTH PROJECT

"SEAMEO TROPMED"

CENTRAL COORDINATING BOARD
"CCB"

- Teaching
- Research
- Seminar
- Exchange Personnel
- Consultants
- Board Meeting
- TROPMED Information Service
- SE Asian Journal Trop.Med.

NATIONAL TROPICAL MEDICINE AND PUBLIC HEALTH CENTRES
(To be Developed toward Assigned Specialization)

INDONESIA	KHMER REPUBLIC	LAOS	MALAYSIA	PHILIPPINES	SINGAPORE	S.VIETNAM	THAILAND
Nutrition & Food Science	Environmental Sanitation & Venereal Diseases	Public Health & Helminthology	Applied Parasitology and Entomology & Medical Laboratory Technology	Public Health Rural Medicine	Urban and Occupational Health & Family Planning	Communicable Diseases, Plague and Enteric Infections	General and Clinical Tropical Medicine & Tropical Pediatrics