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GRADUATE COLLEGE

A STUDY OF INTERNATIONAL HEALTH IN SCHOOLS OF PUBLIC HEALTH IN THE UNITED STATES

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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degree of

DOCTOR OF PHILOSOPHY

BY

ROBERT CARL BOWERS

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A STUDY OF INTERNATIONAL HEALTH IN

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IN THE UNITED STATES

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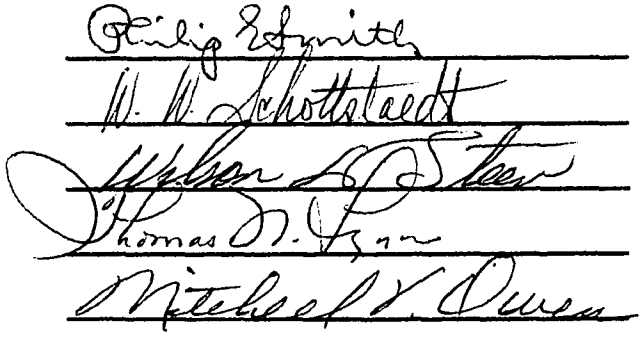

DISSERTATION COMMITTEE

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Finally, to family members -- they know what I mean -- I can only say, "Eoto mongo!"

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CHAPTER I

INTRODUCTION

During the Twentieth Century more people have become aware of world-wide events and are concerned for the world in which they live than in any previous period of human history.

Political developments and recurring wars on a global scale have involved more individuals over a larger portion of the earth's surface than in any previous time. This is due, in part at least, because there are many more people now on the earth to be involved by these developments and these wars.

Rapid communications have made the daily problems of small groups, and even the relatively isolated groups, the daily concern of large, distant populations. Speed of transportation has facilitated on an unprecedented scale the daily exchange of commercial products and cultural developments, and the movement back and forth of large groups of people. World trade is at an all-time high.

Technological processes developed in this Century not only contribute to these developments, but also demand raw materials of type and

scale that are no longer available in any one country. Basic resources are exchanged at an unheard of rate.

These developments have created a pool of general knowledge which is available to men in all lands. This knowledge is in turn generating common hopes and aspirations which people believe can be fulfilled. Hot and cold running water in an improved, comfortable house, a motorbike or other means of rapid transportation, an abundance of satisfying food available daily, possession of a radio or television set, have all become part of the common desire of an ever-increasing proportion of mankind.

A growing part of this enlarging pool of general knowledge are developments in the many health and health related fields. The possibility of greater longevity with less illness or pain is now being brought to an ever increasing number of people as a reasonable hope. Increased fruitfulness of life is a consideration that begins to have meaning. Modern health care is being demanded by people who are abandoning in increasing number their traditional ways. Good health care is being made available to more people than at any previous time in history but the amounts furnished in no way equal the demands that have been created.

Perhaps because of the rapidly advancing technologies in this country, the people of the United States have been, either by choice or by accident, at the creative edge of these developments. Whatever the socio-economic reasons, whatever the basis in familial origin, individual philosophy or personal religion, a large number of people from the United States have contributed to these developments. As a result, there have been formed during this Century most of the private organizations and

government agencies in the United States that have as a part of their concern the improvement of health status across national boundaries. As an example, Table 1 (See Appendix, page 115) illustrates the growth since 1900 of organizations concerned with international medical education.

As these private organizations and governmental agencies have grown, and as they have implemented their programs, they have found it necessary to turn to the major sources of qualified health personnel in this country, namely, the schools of medicine and the schools of public health, to furnish the highly trained health personnel needed. However, because of the special nature of the many jobs to be done, and the type of conditions existing in many of the developing nations, a special demand has been placed upon the schools of public health. How our schools of public health are meeting some aspects of these special demands of international health is the concern of this study.

CHAPTER II

THE CONCEPT OF INTERNATIONAL HEALTH

International health is a concept lacking concise definition. This is due in part to the haphazard and relatively recent growth of the field of international health. It is also partly the fault of the words themselves. Neither the word "international" nor the word "health" in ordinary use carries the meaning that is evoked in the expression "international health". Finally, concise definition is lacking because the functions that must be considered a part of international health are limited only by man's imagination. The complexity confounds conciseness.

The Growth of International Health

International health has evolved from the time groups of men claimed particular areas of the earth's surface as their private territories, thus creating "international" boundaries. The migration across these boundaries of the individuals concerned with treating sick people was the beginning of that international transfer of medical knowledge which is such an important part of current life. However, it was the notion that diseases spread across territorial boundaries that was the most commonly accepted source of practices that developed into what today is usually considered international health.

The origins of international collaboration in public health,

> as in those of national public health, are to be found in the fear of epidemic spread. The possibility of contagion was recognized by many even during the centuries when diseases were little differentiated; when fevers were attributed to exhalations from the ground, or to putrefying odours, or to the state of the atmosphere; when millions believed that sickness was a punishment of the gods.[1]

Temporary restrictions which curtailed movement of people and goods across territorial boundaries were occasioned by severe epidemics. These restrictions were known in most lands from very early times. The "cordon sanitaire", still used today in many places, has a record of intermittant use since A.D. 630 when armed guards were placed on the roads leading from Provence to prevent the spread of plague to the diocese of Cahors.[2] Such temporary measures, sporadically applied, were obviously inadequate as diseases continued to spread. Need for more permanent control measures was recognized during the second great pandemic of Black Death. Rosen states:

> The first step was taken at Venice, the chief port of entry for commerce with the Orient. Based on the belief that plague was introduced chiefly through infected goods carried by shipping, the Venetians set up a system for segregating suspected ships, goods, and people. As early as March 20, 1348, a council consisting of three men was established to supervise the health of the community and to take whatever measures necessary to safeguard it. (The Venetians were apparently following an established institutional pattern, for as far back as the year 1,000 there seem to have been overseers of the public health appointed to serve temporarily during epidemics.) These officials were authorized to isolate infected ships, goods, and persons at an island in the lagoon.[3]

The measures applied in Venice were soon adopted by other cities and states and underwent modification to a more permanent basis in the process.

> Then, in 1383, Marseilles erected her first quarantine stations at which, after rigid inspection of incoming vessels, all travellers and cargoes from infected or suspicious ships were detained for 40 days and exposed to air and sunshine.[4]

By the beginning of the 17th Century every European country and nearly every seaport had adopted its own regulations. From the outset, however, these regulations were a great inconvenience. The wide variety of rules and procedures frequently differed from port to port even in a single country. They were unevenly and often unfairly applied. The requirements, often developed from a misdirected national zeal, frequently had no relation to the control of disease even as it was then understood. The lack of uniformity created a wonderful opportunity for graft, blackmail, and abuse that was quickly seized by petty officials. In the legal morass thus created, sailors, ships, and goods suffered. As late as 1884, the Italian ship Matteo Bruzzo, which suffered an outbreak of cholera after leaving port, was unable to land on either side of the Atlantic and when the passengers were finally allowed to disembark after four months, they were only 78 miles from the port of origin.[5] Such continual distress to passengers and such delay and disruption of trade were very costly. If commerce was to continue, some attempt to bring order to the situation was necessary.

In 1834 an inspector in the French Sanitary Service, M. Segur du Peyron, proposed an international meeting for discussing the problems of quarantine, and in 1843 the British government made a similar proposal. Neither proposal found acceptance. In 1845, a French hygienist, Dr. Melier, began urging his government to action. The French government finally took the initiative and convened a meeting of maritime powers. Members of the First International Sanitary Conference met in Paris on July 23, 1851.[6] Only twelve countries were represented. The conference "dealt with problems of quarantine and the reporting of chol-

era, plague, and yellow fever."[7] The conventions which resulted from the conference were ultimately ratified by only three countries. Immediate results of the conference were thus meager, but the first attempt at international collaboration for public health had been made.[8]

Although results of the first conference were few, the commercial problems due to quarantine and the pressures of a fourth pandemic of cholera led to additional, increasingly frequent, international meetings. Nine sanitary conferences were held in the period from 1859 to 1897. At the fourth conference in 1874 formation of a permanent organization was proposed but enabling action was postponed. In the Americas, however, regional and general attempts at sanitary regulation were taking place. International Conferences of the American States were held in 1889-1890 and in 1901-1902. These led to the creation of the Pan American Sanitary Organization and the Pan American Sanitary Bureau (PASB) in 1902.[9] With this stimulus, the eleventh International Sanitary Conference at Paris, in 1903, recognized the necessity for a permanent international organization. In 1907, the agreement was signed in Rome which established the "Office Internationale d'Hygiene Publique" in Paris. The "Paris Office", as it was known, functioned until the Second World War. This period of development has been summarized as follows.

> Speaking generally, international public health during the first seventy-five years of international collaboration up to the end of the First World War was restricted to epidemic intelligence, and this in a limited form; mainly how to stop the major diseases from spreading to the developed countries. . . .
>
> But it would be an injustice to the Paris Office to omit to mention the genesis of a wider view. The office began to widen out the range of subjects for international regulation. Most notably, it obtained agreement by fourteen countries for certain measures against the spread of veneral diseases along the shipping routes. . . . It also began the standardization of sera and the control of the drug traffic. Within its own com-

> mittees, it began to discuss other public health problems- ranging from anthrax in shaving brushes to organization of hospitals.[10]

Following the First World War when the League of Nations was created, a health organization was also formed. The "Health Organization of the League", created in Geneva in 1923, functioned as the "Geneva Office" alongside the Paris Office until the Second World War. Under article 23(f) of the Covenant of the League, it was to "endeavor to take steps in matters of international concern for the prevention and control of disease."[11] The Geneva Office under this directive developed wider epidemic intelligence programs, carried on the control of drug traffic and the work of international standardization, and promoted the use of technical commissions and international conferences. The Geneva Office also brought the search for uniform codes of vital statistics into the main current of international collaboration by bringing health statistics under the Office. A first international statistical congress had been held in Brussels in 1853. Eight additional congresses were held prior to 1900 and since that date they have been held approximately every 10 years. This addition by the Geneva Office strengthened international health efforts greatly. In summarizing the work of the Health Organization, Goodman says:

> The seeds of both success and failure were planted in the Health Organization of the League almost from its foundation. Success, because it began with the then enormous prestige of the League behind it and because it was created at a time when the needs of international medicine had expanded and could not be met by the previously existing bodies and thus it had a really useful technical job to do. Failure, because the decline of the League as an instrument of world government- or even of world opinion- inevitably reacted on all its work and because the existence of two independent bodies, the Office and the Health Organization, was a constant irritant, sometimes beneficial, but on the whole harmful.

> . . . The proof of the value of the Health Organization's work is that what it created has not been abandoned, but taken over by new owners and extended, very largely on the original foundations.[12]

The work of the Office Internationale d'Hygiene Publique and of the Health Organization of the League of Nations ended, in effect, with the disruption and destruction due to the Second World War. Near the close of that war, in 1943, the United Nations Relief and Rehabilitation Administration (UNRRA) was created to administer relief for the multitude of war refugees. Health needs of these displaced peoples were so great that UNRRA also became, temporarily, the functioning international health organization. "Although an admittedly temporary agency, and although health was only one of its activities, the work of UNRRA was at the time, and still remains, by far the largest inter-governmental co-operative effort in the field of health ever achieved."[13]

Following the Second World War, when the Charter of the United Nations was signed in San Francisco (1945), it was proposed that an international health organization be established. In 1946, the Economic and Social Council of the United Nations established a Technical Preparatory Committee which drafted a constitution for the proposed organization. On April 7, 1948, the final necessary member government (twenty-sixth) of the United Nations ratified the constitution and the World Health Organization was thereby created.[14] This organization inherited all the responsibilities of the Paris Office and the Geneva Office and was assigned considerably more. With headquarters in Geneva, liason offices in New York, six regional offices distributed in principal cities around the world, and over 3,300 persons in its full-time staff, this truly world-wide organization is the vast outgrowth of those tentative

steps for disease control 600 years previously.[15] That those steps should have brought such a development seems scarcely credible.

This bare recounting of only the most salient points gives the impression of a continuity and a sense of direction that did not exist. Local, national, and international events leading to our current international health organization were haphazard, sporadic, bungling, mistimed and often misdirected. It could be said very appropriately that the world has more or less stumbled into international health collaboration. Yet, the world today experiences the most effective international collaboration for health in its long and varied history.

The twenty years that have elapsed since the founding and universal acceptance of the World Health Organization have been accompanied by such phenomenal growth in its responsibilities and functions that development of a clear concept of the field of international health has not been necessary and thus has not occurred. This lack of a generally accepted understanding of international health results in serious difficulty when the subject is discussed, or when attempts are made to develop coordinated programs or training programs to produce the professionals necessary for promoting and improving the international health.

The Inadequacy of Definition

As mentioned earlier, concise definition of the concept "international health" is difficult because of the very words used. Neither the word "international" nor the word "health" normally carries within itself the same meaning it has for most people when it is used in this expression.

International

The word "international" seems, at first glance, to be quite clear. It is that activity which takes place between two nations. This is the ancient, and strict, definition of the word. This clarity gives way, however, when more than two nations are involved. Through common use the word has become acceptible in the "many nations" sense. Webster's Dictionary gives the following definitions for "international":

> 1) existing between or among nations or their citizens: relating to the intercourse of nations: participated in by two or more nations: common to or affecting two or more nations.
> 2) belonging to or relating to an organization or association having members in two or more countries.[16]

Widespread use of the word in many different senses has created the need for some other expression when precision is required.

Addition of the words "bilateral" and "multilateral" to the expression is common. H. S. Gear writes of "bilateral international programmes" and "multilateral international programmes".[17] Clarity is enhanced by these additional words. The price, however, is increased bulk and awkwardness.

Other words have been employed in the attempt to restore clarity. Thus the word "world" has come into wide use. We now have the "World Health Organization", the "World Medical Association", and many similarly named organizations. The meaning of "world" is not precisely that of "international". The sense may be nearer that of the concepts involved, but many feel strained in using the two words interchangeably. Goodman attempted to clarify this in 1952 when he wrote:

> At first sight the terms 'world health' and 'international health' would seem to be synonymous and certainly confusion has arisen from the natural preference for the succinct term 'world', as for instance in the title of the World Health Organization,

> over Jeremy Bentham's 'unimpassioned vocable' 'international'.
>
> In current jargon, however, 'world health' is usually understood as the health of the world as a whole and 'international health' (or 'international health work') as the international efforts necessary to improve world health. Perhaps the best definition of 'international health' is 'any or all of those activities for the prevention, diagnosis or treatment of disease which require the combined consideration and effort of more than one country'. Thus, for example, the World Health Organization is an international body doing international health work with the object of improving world health.[18]

By 1965, his definition, in another article, was more laconic. "International health has come to comprise those problems in the field of health which require consideration and action by more than one country."[19] Currently, the two words continue to be used almost interchangeably and the uneasiness in doing so continues.

The word "global" is also used in the attempt to express an expanded meaning of "international". It came into use during World War II to describe the expanded nature of that conflict. In the introduction to their book, Global Epidemiology: A Geography of Disease and Sanitation, Simmonds and his co-authors wrote in 1944:

> The rapid expansion of the conflict to assume a truly global character meant in substance that no one might foresee today the exact area to which troops might go tomorrow. The scope of the surveys therefore quickly spread to cover all corners [sic] of the globe and all countries, both friendly and belligerent.[20]

"Global" has not come into wide use, however, as a replacement of "international" but is used rather to emphasize the plural, multilateral, reciprocal, or expanded character of that word. Thus in a note explaining their subject, "Global Community Health", Smith and Banta wrote:

> International health is commonly conceptualized in America as health activities in an overseas setting for the benefit of other nations.
>
> The United States became initially involved in international health activities in 1794 for the purpose of preventing the importation of epidemic diseases. The domestic benefits of this type

> of activity are evident- clearly, there are intercountry benefits for all participants. However, subsequent international health activities have had less obvious intercountry benefits, specifically benefits accruing to the United States. Other than the benefits directly attributed to foreign quarantine activities, American international health contributions are usually thought of in terms of health improvement for foreign nations. The term Global Community Health is used here to refocus on the benefits of international health activities in both directions, benefits accruing to the donor as well as the receiver of such aid. It is used to focus on the inter of "international health".[21]

It seems justifiable to conclude that the term "international" is subject to several interpretations which result in ambiguity. People are uneasy in using the word when precision is needed, but an equivalent word or expression of greater clarity has not been forthcoming.

Health

No word is more difficult to define adequately in English than the word "health". Brockington says ". . . its meaning is elusive and its wide use contrasts with any clear, distinct, or generally accepted definition."[22]

Health is commonly defined, negatively, as being the lack of disease.

> A healthy state is difficult to define precisely; it may be described as freedom from physical and mental impairments (except those that are the natural concomitants of the aging process, the wearing out of the human machine), from disease, and from illness. This is the commonly understood interpretation of the word, and it is sufficiently precise for our purpose without putting too fine a point upon it.[23]

> To many physicians, as well as laymen, health means simply the absence of disease. A person is considered in good health if there are no positive impediments to his functioning or survival.[24]

> Traditionally, health has been viewed and measured in negative terms, namely the presence of disease, infirmity, or death. We have therefore in the past attempted to measure health by focusing on health failures.[25]

Forrest Linder says with simplicity and asperity, "The health of a country's people has traditionally been measured by the rate at which they die: a decreasing death rate is taken as an indication of increasing health."[26] In this manner of thinking, health and disease are considered as opposite sides of a single coin. Thus, when one side, for example "health", is visible, the other side, "disease", is, ipso facto, invisible or absent. Such an all-or-none state of perfectness must be extremely rare. If it ever occurs, it must be only a fleeting moment in any human's existence. "Complete and lasting freedom from disease is but a dream remembered from imaginings of a Garden of Eden designed for the welfare of man."[27] Total disease, even at the moment of death, must also be uncommon. Cardiac and other organ transplantation from the dead are dramatic testimony to this fact.

Some writers use a similar approach but alter it by defining health and disease as extremes of a scale upon which various combinations of the two states are present. "A useful approach is to view health as a spectrum. This spectrum ranges from perfect health to the complete absence of health, or death."[28] This makes of health and disease overlapping states in which one or the other is predominant to a certain degree at any given moment but neither one is ever completely predominant during life.

Webster's Dictionary defines health as "the condition of an organism or one of its parts in which it performs its vital functions normally or properly: the state of being sound in body or mind."[29] This bare definition leaves much unsaid: no idea of what is the normal, proper or sound state is given. However, the definition calls attention to the

very important notion that health is a relationship. A similar definition states that "the word 'health' is of Anglo-Saxon origin and denotes 'wholeness' or a state in which each organ performs its functions in harmony with every other . . . ."[30] These definitions remove health from a static to a dynamic concept in which the interplay of the various body parts and functions are emphasized. The deficiency of these definitions for the purpose of this discussion is their implication that only internal relationships determine health status. The notion of a vital external relationship is lacking.

The importance of the internal state, "le milieu interieur", was first elaborated by Claude Bernard (1813-1878), but he immediately related it to the demands of the external environment. Of him Dubos says:

> Claude Bernard supplemented the doctrine of evolutionary adaptation by his visionary guess that fitness depends upon a constant interplay between the internal and the external environment of the individual. He emphasized that at all levels of biological organization, in plants as well as in animals, survival and fitness are conditioned by the ability of the organism to resist the impact of the outside world and maintain constant within narrow limits the physico-chemical characteristics of its internal environment.[31]

The external environment determines the type and extent of demands placed upon the individual's functions. If these demands exceed the capabilities for adjustment, ill health, or disease, may be provoked. The following dynamic concept of health is given by Perkins.

> Health is a state of relative equilibrium of body form and function which results from its successful dynamic adjustment to forces tending to disturb it. It is not passive interplay between body substance and forces impinging upon it but an active response of body forces working toward readjustment. . . . A normal healthy person may be defined, therefore, as one who can retain all of his organs and tissues in a state of efficient function and physical organization against those external and internal forces that are constantly tending to disturb him.[32]

As understanding of this relationship grows, definitions of "environment" become more inclusive. The external forces acting upon the individual are seen in greater variety and scope than previously appreciated. Time, culture, society, etc., are understood as a part of the environmental relationships that produce health or disease. "Realistically, health cannot be considered apart from environmental, social, and economic influences."[33] Talcott Parsons relates health to the social environment in the following ways.

> Health may be defined as the state of optimum capacity of an individual for the effective performance of the roles and tasks for which he has been socialized. It is thus defined with reference to the individual's participation in the social system. It is also defined as relative to his 'status' in society, i.e., to differentiated type of role and corresponding task structure, e.g., by sex or age, and by level of education which he has attained and the like. Naturally, also there are qualitative ranges in the differentiation of capacities, within sex groups and at given levels of education.[34]

The World Health Organization attempted to emphasize this positive and all-inclusive nature of health in stating in its constitution that "health is a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity."[35] It failed to suggest the dynamic action-reaction that is constantly occurring within the individual or between the individual and his total environment.

These definitions, with the internal and external relationships they include, approach the meaning of the word "health" as it is used in the expression under discussion. Yet, inclusive as they are, they seem to lack an important element of meaning. Whereas they center upon the individual, the term "health", in the expression "international health", draws attention to the individual and to the community. Health used in this sense refers not only to healthy individuals considered as a group

but to the group, or community, considered as an entity in itself. This use suggests that health is even more than a community affair: it is a dynamic state of the community as an entity. It points to a health of community as opposed to or apart from a health of individual, even an individual in community. "The problem of health is the problem of people."[36] This is true, but in the broader sense, as viewed in this discussion, the people-in-community become the object of consideration. The public health aphorism "the community is the patient" is particularly pertinent here. When communities are considered as entities, healthy communities and sick communities, growing communities and dying communities become possibilities. Such do exist. They are, perhaps, more easily seen in the political sense, or the urban developments and slums, but they are very real considerations in the concept "health". The importance of this added meaning may be appreciated by considering that, while a woman is either pregnant or not pregnant, a community may be only three per cent pregnant.[37]

The word "health" refers exclusively to neither the individual nor to the community. It refers to both. It is the existence, however, of these many meanings of the word that make it so difficult to use clearly or to understand exactly. The all-inclusiveness, which makes it so valuable and so useful, thus creates confusion when the word is used in special expressions such as international health.

International Health

The expression "international health" is, therefore, a combination of two words that are very difficult to define clearly. As symbolization of a concept, the expression is diffuse and vague. The concept

may or may not be clear, but the symbolic expression of it is certainly unclear. The expression is not capable of standing alone. Each time it is used, it must be explained, qualified or defined. This necessity increases the difficulty in achieving wide understanding. It hampers promotion of public and professional support vital to the solution of the broad, world-wide, problems of total health for all mankind.

Functional Complexity

Clear, concise definition of international health is, perhaps, rendered impossible by the scope and complexity of all the interrelated, and many seemingly unrelated, disciplines involved in and by it. Sociology, psychology, parasitology, anthropology, ecology, medicine, economics, engineering, administration, geology, biology, geography, education, toxicology, meteorology, and history are only a few in the long list of generalized and specialized disciplines that man has developed. The entire list encompasses all that is currently known to mankind.

The combination and interaction of so many areas of knowledge make it extremely difficult to describe the functioning of even a single, small unit. A baby is a history of mankind. A bacterium is a universe. The complexity and apparent confusion is multiplied many times when description of a state or a nation is attempted unless consideration is restricted by rigorous definition. Scope and complexity are expanded at the international level. The scale is increased. Synthesis of all into a simple concept which the terms "international health" may represent is, therefore, most difficult.

In an earlier period of history when the expression was coined, human knowledge was limited in scope. Lack of rapid transportation and

communications made understanding of detailed functions on the large scale impossible. At that time, the words "international health" were, probably, sufficiently clear and precise. Today, it would be surprising if any two words could be found that would express adequately the complexities involved. Thus, the very complexity and scope of international health confounds the conciseness needed for a clear definition. Workers in the field, although uneasy with this state of affairs, manage reasonably well until asked, "What is international health?". A contextual definition is usually given. It may be all that can be given. A general definition for our age certainly seems to be lacking. Our complex technology defeats us by presenting an array of knowledge and understanding beyond our current capability for synthesis.

CHAPTER III

INTERNATIONAL HEALTH CONTENT IN SCHOOLS OF PUBLIC HEALTH: A BEHAVIORAL DEFINITION

Schools of public health in the United States are phenomena of this century. They are the result of developing social concern in the United States in the mid-nineteenth century. They represent awareness of the growing body of medical and scientific knowledge and the need to apply that knowledge to the cities and communities in which people live.

In the United States, all schools of public health have developed in universities and most have developed from schools of medicine. Indeed, most have developed out of departments or divisions of hygiene, tropical medicine, public health or preventive medicine of the related school of medicine in such a way that it is difficult to clearly establish the date of founding. A number of schools remain as a functioning part of the medical school.

The schools of public health function predominantly but not exclusively at the graduate level. The major degree of the schools is the Master of Public Health (1,099 of 1,747 degrees granted in 1970-1971), although twenty-six other types of degrees or diplomas are awarded.[38]

In general the objectives of these schools include "the advancement and dissemination of knowledge relating to human health and well-

being".[39] Their concern being the "whole body of knowledge and its application relating to the preservation and improvement of health of individuals and of the community and to the prevention of disease."[40]

Problem

Since the definition of international health has not been clearly established, it should not be used as the sole norm by which to evaluate the function of schools of public health in the area of international health. The problem is how to identify that content of health in schools of public health which can properly be labeled "international". Rather than impose a single definition which may or may not include what the schools identify, it seems reasonable to attempt to determine what the schools themselves, by appropriate reference, consider international health or international health activities. In this way, at least a behavioral or operational definition of the field can be established. The first question to be investigated, therefore, is, "To which of their functions, activities, or areas do schools of public health refer in terms that can establish them as being international?".

Method of Investigation

Schools of Public Health Studied

In its 1971 report the American Public Health Association, the professional organization of public health workers, lists eighteen schools of public health as accredited schools.[41] Sixteen schools are in the United States, one school is in Puerto Rico and one school is in Canada. Of the sixteen schools in the U.S.A., eleven schools were in existence on or prior to 1950.[42] These eleven were the schools selected

for study in order to have a twenty year period for comparison. Of these eleven schools, the oldest was established in 1889 and the youngest in 1950 (See Table 2, page 117).

Materials

The decision was made to conduct the study by reviewing materials that had already been prepared as general presentations of the programs from each school. This decision was made in order to avoid extra demands upon the schools of public health. Two types of material were investigated, namely the Dean's Annual Report or similar item, and the school catalogue or bulletin.

The Dean's Report, or the Dean's Progress Report, seemed the ideal source for information concerning educational programs, school and departmental developments, interests of faculty and administration, other programs, and for accomplishments during the year. It was soon learned that not all schools publish an annual report. Some publish a biennial report. At least one school publishes a cumulative report. The attempt to utilize the Dean's Report as a source material had to be abandoned. Later in the study, the attempt was made to utilize Dean's Reports in order to check congruity of information from the catalogues or to identify correspondence between announcement and accomplishment. Again lack of similar patterns in publishing these reports made it impossible to use them.

The individual school catalogues were selected, therefore, as the material to be covered. Catalogues for the academic years 1950-1951, 1960-1961, and 1970-1971, were then requested from the eleven schools that had been selected. Catalogues were received from nine schools, and

these nine schools became the subject of this study. They are part of the following universities: California - Berkeley, California - Los Angeles, Harvard, Johns Hopkins, Michigan, Minnesota, North Carolina, Pittsburgh, and Tulane (See Table 3, page 118).

Definitions

Consistency of definition was a major problem in recording those areas, activities or subjects which the schools themselves referred to in a way that made them clearly identifiable as international.

(1) All items having a title of "international" or carrying a description using the word "international" were obviously included. Similar acceptable words were "world-wide", "global", and "multinational".

(2) Evidence of non-United States orientation was also accepted. Terms such as "foreign" and "overseas" fell in this category, as did expressions such as "several nations" or "many lands". Also included were direct reference to a specific country, e.g., Japan, or to a geographical area of the world, e.g., Asia.

(3) References to "developing nations", "underdeveloped nations" or "underdeveloped areas of the world" were accepted because in current usage by United States institutions they refer to other nations or areas. All nations are, in fact, developing, and all are by some standards underdeveloped.

(4) The expression "new nations" was also accepted although it is subject to the same question of standard.

(5) The terms "population", "populations", or "human populations" were not considered sufficiently specific to be included. These terms are frequently used with an international connotation, and it is

easy to read into them an international awareness. Unless, however, the term was modified so as to be clearly international, it was not accepted.

(6) The terms "culture" and "intercultural", and even the expression "many cultures", were not accepted unless also modified so as to be clearly world-wide or at least evidently involving more than the United States.

(7) The words "tropics" and "tropical" posed special difficulties. These words are used frequently by people in the United States as though they refer to non-U.S.A. diseases, infections or areas. This is not always the case as only a very few diseases are limited to tropical areas and many of the diseases considered in tropical medicine textbooks are found, or at one time were found, in the United States. Therefore, unless discussion or modification clearly demonstrated awareness of a non-United States orientation the reference to, for example, "tropical diseases" was not considered adequate for it to be counted.

(8) On the other hand, references to the "Tropics" were accepted. The word "Tropics" is commonly used as a synonym for the area of the earth known as the Torrid Zone. Parts of the United States are tropical, but no part of continental United States lies in the Torrid Zone or "The Tropics".

These words or expressions became the "terms of reference" for this study.

Procedure

When catalogues of the nine schools under study were received, each was carefully scanned in order to obtain an impression of format and general orientation. The catalogues for the academic year 1970-1971

were then selected for this portion of the investigation. The catalogues were placed in alphabetical order and each was then read carefully. All mention of the key words or expressions as previously defined (i.e., terms of reference) were noted and extracted. Identifying page or line was recorded for each term of reference found. When all nine catalogues had been read, the process was repeated. This was done in order to reveal any term of reference that had been missed, and to correct any slight modification that might have occurred in definition or understanding in going through the catalogues.

Utilizing the general format of the catalogues, a list was developed of all the general areas in which terms of reference were found. Specific subdivisions or units of a general area were also recorded where clarity dictated. A table was then developed with the nine schools on the abscissa and the list of categories or areas in which terms of reference were noted as the ordinate. In composite a total of 513 entries were possible (See Table 4, page 120). Thus, an entry in the table is a number which represents the number of times that terms of reference were recorded in that category for the school under consideration. For sake of brevity in discussion, "terms of reference" are frequently referred to as "items", thus, "five entries consisting of eleven items". When all recorded citations of terms of reference had been entered into the table, it was examined carefully for evidence of consistency. Any evidence representing a possible error of inconsistent interpretation or of recording was carefully noted. Questions of error were then resolved by re-reading the catalogues and verifying all references.

Evaluation

The nine schools of public health included in this study vary markedly. Each has developed under widely differing historical, geographical, sociological and political circumstances. Experiment has been encouraged in the schools. These variations however, raise the question of comparability. In spite of the seriousness of this question, it is felt that sufficient similarity does exist between the schools to allow some meaningful conclusions to be reached. Stated purpose and function have brought about many similarities; the process of accreditation has recognized and promoted others. The Association for Schools of Public Health has brought the recognition of still additional similarities.

The catalogues or bulletins from the schools were, even at cursory glance, as varied as the schools. Spread on a table, they made a startling array of color, size and thickness. Preliminary examination of the content revealed even greater differences. Some presented only the most essential information needed by a prospective student. Some presented a more extended description apparently intended for recruiting students. A few offered a very detailed document which could almost be a substitute for a Dean's Report.

In spite of these, and other differences, certain similarities, and in many instances a boring sameness, began to appear. The catalogues did present similar basic information for the students. (1) They revealed the academic organization necessary for making the educational offerings. (2) They listed and discussed the basic requirements for similar degrees. (3) They offered and described the areas of their school's

interests. (4) They presented faculty qualifications and the courses of study offered by them. Thus, in spite of the more obvious differences, material was available of sufficient similarity to permit combination and comparison.

General

General information. The area of general information and description in the catalogues seems to be the most widely varied. The most obvious difference apparently results from differing publishing policies on the part of parent universities. At some universities it is the policy to publish a university-wide general catalogue. This catalogue contains the general information concerning university location and facilities, university policies, local costs, tuition, fees, etc. A separate, usually smaller, catalogue is published by the school of public health which presents its special facilities, programs, and courses. In other universities, the policy is, apparently, for each school catalogue to be complete in itself. A catalogue from such a university contains most of the general information of the university as well as the special information of the particular school. Marked variance thus occurs which complicates efforts to compare the general information from schools utilizing the two different policies.

General objectives. The stated general objectives or the orientation of an individual school also leads to variation in information contained in the catalogue. Some schools have a stated world-wide concern while others have declared a national or regional orientation. For example, one school has seven entries consisting of eight items in the category of general information for foreign students and its statement

of school objective contains a single term of reference. Another school has no entries in general information for foreign students and no term of reference in its school objective. However, it does have a declared regional orientation in its general description.

Foreign student policy. Policy regarding foreign students also creates major important differences in the general area. At least in regard to terms of reference, seventy-two of ninety-two items in the general area concern foreign students. (See Table 5, page 125, Administrative - FS & - IH, General Description and General Information.) This large proportion gives ample opportunity for considerable variation. The policy differences seem to be expressed in two ways. First, some schools obviously anticipate large numbers of foreign students and make provisions for them while others, not anticipating a great number of foreign students, do not make special provision for them. One school has a total of fifteen items referable to foreign students, and almost one-third of its student body give a foreign address. At the other extreme is a school with only one item and it has only a few foreign students. Second, although some schools have large numbers of foreign students, they apparently do not single them out for special attention or advice in their publications. For example, in one school in which over one-fourth of the student body gives a foreign address, only one item referable to foreign students is in its catalogue.

Programs of Study

Schools of public health are, apparently, using two different definitions for the rubric "Programs of Study".

Schools in one group describe in detail under this category the

various degrees offered by them and the requirements leading to the granting of that degree. Statements, such as, "Program of study leading to the MPH", are common in this group. The program described is usually followed by a list of "core courses" and other courses which must be taken for a required number of credit hours. Schools using this definition have few terms of reference recorded for this category.

Schools in a second group may also describe under this rubric the degrees and courses of study leading to them. They also describe, however, the disciplines or areas of study in which the degree may be granted. This group of schools has a larger number of terms of reference recorded in this study. While describing the program of study in a given discipline, there is frequently included some mention of its worldwide scope or some reference to its potential for future employment.

There is some evidence that the schools in the first group include extended departmental presentations, while schools in the second group do not make a long presentation of departmental programs. Consideration of the two categories, "Programs of Study" and "Departmental Program with International Content", from the nine schools seems to indicate that this is true. (See Table 4, page 120.) When the number of terms of reference found in the descriptions of Programs of Study made by the nine schools are considered alone, one school has five, two schools four, four schools two, one school five, two schools four, four schools two, one school one, and one school has none. When terms of reference found in departmental descriptions are added to those found in program descriptions, two schools have six, two schools five, one school four, one school three, and three schools two. The narrowed range and

the more even distribution in the latter case seems to support this notion that "Programs of Study" and "Departmental Program with International Content" have a reciprocal relationship in the school catalogues.

Courses of Instruction

While there are considerable differences from school to school in the titles of departments or administrative divisions, and also in the titles attached to courses, the comparison of courses of instruction with international content is the most consistent portion of the study. All schools carefully identify their courses. There are, however, three different methods used by the schools in handling those courses which might be classified as "interdepartmental". The traditional method used by most schools is to list and number courses within the department offering them. If a department wants a student to have a course offered by another department, it simply lists the course among the required courses for its students. A second method is exemplified by one school which has identified a group of courses that it specifically labels "interdepartmental". Any student from any department may enroll in an interdepartmental course. One school, however, using the third method, lists its interdepartmental courses in each of the cooperating departments. Thus, if a term of reference is found in a course offered by three cooperating departments, it will be counted three times. This school has terms of reference for twenty-seven courses. (See Table 4, page 120.) If it had used either of the first two methods, a total of fifteen courses would have been counted. The difference caused by this method of handling interdepartmental courses is not deemed significant for this study.

It should be noted that no attempt has been made to try to appreciate the weight or value of the courses in which terms of reference occur. The course may be a one credit hour course or a four credit hour course, but the citation of one term of reference becomes only one item in the table.

Overseas Study

Two types of overseas study are available in the various schools. (See Table 4, page 120.) One type is represented by an organized tour of short duration. It is usually sponsored by a single department for selected students in the department. It is designed for rapid, intense introduction of the students to the variety of problems in another cultural setting. The tour may last one or two weeks and is a form of "public health tourism" in the best sense of that expression.

The second type of overseas study is for a more prolonged period. In this instance, the school or department usually refers to overseas study projects. These are usually ongoing projects which last several months or years, and they are usually related to research and to faculty or school interests. Student participation in the project relates to research or to gaining operational experience. The minimum duration mentioned for student participation by any school is "a summer" or "ten weeks."

Included in this second type of program, although identified separately, is the "International Center for Medical Research and Training". This program, established by the National Institutes of Health in 1960, allows highly competent U.S. scientists to utilize research opportunities abroad and still permit each to retain connection with his own

American university. While most such programs usually involve faculty, a certain number of graduate students may be given study fellowships. Five such international centers have been established. Three of the five centers are related to schools of public health but only two of the three schools mention this opportunity in their catalogues.

It should be noted that items were recorded with as much care as possible for projects and not for countries. In some projects, for example, projects comparing administration of health care or deaths from coronary disease a number of countries were involved. In some of these projects, the names of participating countries were not mentioned. Thus, a more consistent appraisal is obtained by identifying projects. Unfortunately, from the catalogues it was not possible to make any comparison of the size or extent of a project nor of the importance attached to it by the schools or the participating countries.

Faculty Designation

Faculty which is designated as "international" is an important consideration for this study. Each university has its own policy for identifying its faculty members by rank and discipline. Every catalogue reviewed has a composite list of its faculty in front or in back, and usually the faculty is listed for each department. Unfortunately, differing university policies lead to exaggerated differences in this section. In most schools, only those faculty members who have "international" or a similar term of reference in their formal title can be identified. The number of such specifically identified faculty members is small. In each of two schools, three members are thus identified and in one school only two are identified. Two schools, having an international

department or division, include in the international department faculty all faculty members having any relationship with the department. In these two instances, all faculty members, whether or not their formal title includes "international", are counted as international faculty. Thus, one school has forty-six identifiable faculty members and the other has twelve. The total of eighty-six international health faculty for the nine schools which was arrived at in the manner described above does not correspond to the number reported for all schools of public health. In the annual report for the year ending June, 1971, the number identified as international from all eighteen accredited schools included twenty-five full-time faculty and nineteen full-time staff.[43] If to this total of forty-four full-time personnel is added the four and seven-tenths full-time equivalents of part-time personnel, the total of forty-eight and seven-tenths is still well below the eighty-six identified in the catalogues.

In any event, the number of faculty identified as international is relatively small. In the annual report cited, the forty-eight and seven-tenths faculty and staff in international health is only a fraction of the 1,769.5 total faculty and staff. Important for this study, however, is the fact that five schools specifically identify faculty members in the area of international health.

Student Origins

The origins of students are not consistently presented in the school catalogues. In the few catalogues in which they are listed, the proportion of the student body represented by foreign students gives weight to a school's expressed desire for foreign applicants. The absence

of student origins, however, does not greatly alter the interpretations of this study.

Discussion

Foreign Student Education

The first area in which terms of reference are encountered in catalogues of schools of public health is the area of foreign student entry and participation in the educational experience.

Four schools list foreign student activities in their calendar. Three of these entries relate to orientation programs and one to English proficiency examination.

Catalogues from six schools have a total of eleven items for foreign students in their tables of contents, and two schools give specific addresses to which foreign students may write for additional information.

Three of the nine schools list an administrative officer who is responsible for foreign students affairs.

In the general description, three schools mention an international club or an international center for foreign students.

In the category of general information, eight of the nine schools published specific information for foreign students. The one school with no entry has a large foreign student body but has a carefully guarded policy of not separating foreign students apart for special instruction or attention.[44] The special information for foreign students consists of admission information or instruction (five schools), advice on educational and living costs (two schools), and fees to be paid (four schools). Health insurance is required for foreign students at four

schools. Two of these schools repeat the requirement in at least two places in their catalogues. Financial aids for foreign students are listed by four schools. One school gives at least four sources for such help.

Six of the nine schools require that the student pass an English proficiency examination. This is the most common entry concerning foreign students. The examination most commonly mentioned is the Test of English as a Foreign Language, the "TOEFL" test.

Five schools have an orientation period for foreign students. This period varies in length, usually one or two weeks, and the student is required to attend by four schools. The other school "requests" that the student attend.

Housing for the foreign student is specifically discussed by one school and is discussed by two other schools in the context of an "international" house. The former school also has a specifically designed and specially directed "International House". The international house is used as a teaching-learning environment for both foreign and U.S. students, and operates an extensive educational program for its occupants.

The two schools in California publish in their catalogues a statement which must be considered as very special advice for foreign students.

> Foreign students who intend to return to their native countries are advised to consider the opportunities for graduate study and research at this University without reference to a degree, because some of the specific American requirements for higher degrees are not essential for work abroad, and are difficult to complete in the limited time usually available for study here.[45]

The question of the relevancy of a degree from an American school to

effective work in other lands was considered extensively in 1963 by the Committee on Studies of the Association of Schools of Public Health, which, aided by the Benjamin J. Rosenthal Foundation, published the study report, International Roles of the Schools of Public Health of North America.[46] By publishing this special advice in a catalogue, the California schools indicate a concern for appropriate assistance to the foreign student that is not always found elsewhere.

In summary, the category of general information for foreign students contains thirty-five entries consisting of forty-three items. The items are found in the areas of initial contact, basic procedure for continuing the contact, sources of funds, costs, living conditions, housing, health, requirements regarding past educational experience and English proficiency, enrollment, orientation, and the relevancy of an American degree.

In the information that is identifiable as internationally oriented which is published in catalogues of schools of public health, information concerning foreign students holds a large place. Of one hundred sixty-nine entries in Table 4 (page 120), fifty-three are found in the rubrics concerning foreign students. This finding is supported by the number of foreign students receiving degrees from the schools of public health. In the annual report of the schools of public health for the year 1970-1971, in which all eighteen accredited schools (one in Canada) are considered, there are 1,747 graduates listed of whom seventy (4%) are from Canada and two hundred sixty-one (15%) from other countries.[47] Dr. Frans Doeleman in his 1968 study of U.S. schools of public health states, "The percentage of foreigners in most schools varied

between 10 and 15%, ..."[48] It seems apparent that schools of public health consider the education of foreign health personnel an important aspect of their function. Thus at least one portion of a behavioral definition of international health is established by schools of public health as the education of foreign health personnel in the United States.

U.S.A. Student Education

Students who are U.S. citizens are the obvious concern of the schools of public health in this country. Terms of reference are found in information that concerns at least two categories of United States students.

United States career student. The first category of students are those who do not plan a career overseas. Among these students two types may be identified. One type is the student who has little or no international interest but who needs to be made aware of the international implications of his work. The schools meet the need of this student by offering a general, usually required, introductory course in which the international level of health work is considered briefly. The other type of student is the one who wants to know his discipline or field completely and, therefore, needs the international as much as the national or local scope of his field. These students may be interested in a health problem of which the international is only one sector. They may be interested in intercultural problems which may be most easily appreciated on an international basis. This type of student needs courses of greater detail or educational opportunities in greater depth than do the first type. Regardless of the particular level of interest an American student has, the schools show an awareness of these students

and of their interest as indicated by the number of terms of reference used.

In the general description, three of the nine schools list an international club or center. Two of the three schools specifically mention that both foreign and national students are encouraged to participate in activities of the club. Three of nine schools also list an international house. One of these schools encourages American students to live in the house and to participate in its programs.

In discussing programs of study, only one of the nine schools fails to use a term of reference in presenting at least some of its available programs. Nine different programs have a term of reference used in their presentation, at least at some schools. Only one of the nine programs is clearly oriented to the international and that is "international health". Other programs in which terms of reference are found are: environmental sciences, family planning and population, health administration, health planning, infectious and tropical diseases, maternal and child health, nutrition and public health education.

Departmental program descriptions in four of the nine schools contain terms of reference which are found in the descriptions of thirteen departments. All nine schools offer courses whose description contains a term of reference. These courses are offered in twelve different departments and, in one school, in an interdepartmental arrangement. The departments offering courses are: behavioral and social sciences, biostatistics, demography and epidemiology, environmental health, family planning and population, health administration and public health practice, health education, international health, maternal and child health,

medical care and hospitals, nutrition, public health nursing and tropical public health and infectious disease. Only the department of international health has by its title specific international orientation. The number and variety of departmental and interdepartmental programs and the many course offerings that have an international reference make it plain that the schools anticipate more participants than the foreign students or the international career oriented student. They are anticipating the non-international career student who is interested in the broader perspective of his discipline.

Another category of offerings is the special overseas study tour. These tours seem particularly suited to the U.S. student seeking an intercultural awareness or to the student who desires to make comparisons of health services or problems found in a different national background. Four schools publish in their catalogues the opportunity that exists for U.S. students to participate in such a tour. Three schools offer study tours in nutrition. One school offers two tours. One is a tour concerned with health services administration and the other tour seeks to examine maternal and child health problems.

The effort expended by schools of public health in making available these opportunities for study in which international components are integrated, or in some instances singled out for special attention, and, more importantly, the number of opportunities offered indicate that the schools of public health are concerned about more than the foreign students or the few U.S.A. students planning an international career. They indicate that the schools of public health are concerned about internationalizing the education of the U.S.A. students who are not planning

international careers.

International career student. The schools of public health have a concern for a second category of students who are U.S. citizens, namely those who are planning some form of international service. Five schools specifically include in their statements of school objectives a reference to the education of students for international careers. All of the educational possibilities available to the non-international career student are also available to the career student. Terms of reference are found in other offerings which are plainly for the international career student.

Two schools list the availability of overseas fellowships. These fellowships are, as stated by one school, "...for physicians interested in pursuing careers in the field of international public health".

Three schools offer to physicians an approved residency training program leading to certification by the American Board of Preventive Medicine in which the area of international health is specifically available.

Five schools of public health offer programs of study which lead to specialization in international health. Four of these five schools offer courses with the specific, identifying label of "International Health". One additional school, although not offering a program of study, does offer a similarly identified course.

The special overseas study trips offered at four schools are available to the non-international career student as well as to the international career student. Additional possibilities exist, however, for the latter. Five schools list a total of twenty-six overseas

projects. Not all of these projects carry an opportunity for graduate student participation within them, but many do. Similar possibilities for graduate training are listed by the three schools that have special studies centers and by the two schools having an International Center for Medical Research and Training.

The number of students planning an overseas career is not large. All such students are not identifiable since some students now planning such a career will be diverted to other areas, and some students who are identified in a specific discipline will, eventually, establish careers in international health. In the academic year 1969-1970, the eighteen accredited schools of public health conferred a total of 1,741 degrees. Of the degrees granted, only thirty-three were identified as being in international health, and 301 graduates, 5.8%, were identified as working outside the U.S.A. and Canada.[49]

The schools of public health are expending resources, energy and time in developing and offering these opportunities for international career oriented students, and they have made it clear that they consider this a part of their function in international health.

International Health Faculty

The schools of public health maintain a qualified faculty in order to teach, direct or supervise the various students. The faculty members are among the most highly qualified in their particular field both nationally and internationally. Two schools make reference to their "faculty of international reputation" in their general description. One school states, "The School is staffed by a faculty of international distinction in teaching, research and consultation,..." At five schools

there are faculty members whose titles contain reference to "international health". As previously discussed, two of these schools also present an organized department or division in which faculty members are listed.

All of the faculty members are experts in their fields. Combined, they represent a considerable resource of knowledge and skill. While the primary obligation is to student and school, faculty members are also available to meet other needs. One school referred to its faculty members as "consultants to national and foreign governments". Consultation or the provision of expert advice is a continuing function of the faculty. Indeed, one means by which a faculty member retains his skill is to be constantly called upon to provide answers to new problems or new answers to old problems. The function of the schools of public health in maintaining a "pool of expertise" available to all nations becomes a part of the schools' operational definition of international health.

Courses of Instruction

All nine schools in this study offer some course which contains a term of reference. (See Table 4, page 120, and Table 5, page 125.) One school has twenty-seven courses in which a term of reference is found either in the title or the description. One school has only one course. The other schools range between these extremes. The departments in which these courses are found are varied, and represent a cross-section of departments found in schools of public health. Disciplines which are taught in separate departments at some schools are combined into a single department at other schools. Although the combined departments are used for convenience in developing Table 4, there are still a total of twelve

departments in which courses with terms of reference are found. (See Table 6, page 126.)

Four schools offer courses listed under a department or division of international health. Course offerings at one school cover health agencies and programs, comparative health services, comparative disease patterns, and current issues in international health administration. Course offerings at another school cover program planning and project development, decision procedures, planned change, comprehensive health planning, epidemiologic field studies of infectious diseases, family planning administration, teaching community medicine in medical schools, economics of health and methods in health services planning. In a third school, the courses offered include administration, programming and special problems in international health. The fourth school includes among its courses an introduction to international health, cultural aspects of health programs, health and economic development, health services for developing countries, educational programs and special studies. It is apparent from the differences in these offerings that each school is approaching international health on its own conceptual base. It is also apparent that all four appreciate the scope or breadth of international health.

In three schools, terms of reference are found in behavioral or social science departments. In one school, a course entitled "Cross-Cultural Psychiatry" considers ways of meeting psychiatric needs in developing countries while "Health and Illness in Cross-Cultural Perspective" utilizes case materials from non-western groups. In the second school, "Planned Change" is the title of a course in which terms of

reference are found. The third school has a course entitled "Social Environment" which considers cross-national examination of authority and decision-making, and one called "Cross-National Aspects of Culture and Health Behavior" which examines health attitudes and beliefs.

Terms of reference are found at one school in courses entitled "Quantitative Decision Procedures" and "Epidemiologic Field Studies of Infectious Diseases". These courses represent biostatistics and epidemiology.

Two schools have offerings in environmental health that have international reference. At one school, a course called "Environmental Health in Developing Areas" is designed for small groups of foreign students. In the other school, water resources planning and environmental health problems in developing countries are considered in two courses.

Courses that involve family planning or population and which have terms of reference, are offered by seven schools. Some courses consider only one or the other of these two topics. Examples of such courses are: "Family Planning", "Problems of Population", "Human Populations and Natural Resources", "Demographic Processes", "Planning, Administration and Evaluation of Population Programs", and "Population Dynamics". At one school, a course entitled "Population and Family Planning Program" gives special attention to the National Planning Program of India as well as the local, county-wide family planning program.

Departments of Health Administration or Public Health Practice contain terms of reference in twelve course offerings. These courses consider medical or health care in international perspective, the nature and function of health care delivery systems, the economics of health

planning as well as the methods, community health problems, and various aspects of organization and administration.

A relatively surprising finding is that in only one course of health education is there a term of reference. This course, entitled "Advanced Community Development for Health Education", considers the "analysis and application of health and health education aspects of agency and organizations' community development programs in the United States and abroad".

Five maternal and child health courses in four schools contain terms of reference. Some of these courses are named "International Maternal and Child Health", "Welfare Programs and Their Relation to Public Health", and "Maternal and Child Health Services in Developing Societies". Two are seminar courses.

Terms of reference are found in six courses offered at two schools in Departments of Medical Care and Hospitals or of Health Care and Hospital Administration. These courses are similar to many already named that consider comparative studies of health services administration, health planning, statistical procedures, and teaching community medicine. These findings reinforce the importance of these disciplines in international health efforts.

Four schools offer a total of seven nutrition courses in which international reference is made. Representative titles are "The World's Population and Food", "Nutritional Problems in Developing Areas", "Public Health Nutrition", and "International Nutrition Policy and Programs". In one school a summer course in nutrition is given by arrangement with the Institute of Nutrition of Central America and Panama in Guatemala

(INCAP).

In one school a course entitled "Planning for Community Nursing Services" is offered. Among its purposes is the exploration of community nursing services "on a local, regional, national and international basis".

In a Department of Microbiology and Tropical Public Health in one school, two courses with international reference are offered. "Tuberculosis" is considered as a public health problem of world-wide importance. "Public Health Aspects of Immunobiology" considers the role and objectives of the Division of Immunology of the World Health Organization.

Terms of reference are found in two interdepartmental courses at one school. These courses consider the history and philosophy of public health and also human rights in health.

The variety and scope of these findings reinforce the point made earlier in Chapter II concerning the complexity of international health. The number of references made and the variety of disciplines in which they are found reveal that the schools of public health, combined, appreciate the scope and needs of international health. Although considerable difference exists in perspective and approach made by the different schools, their arrangement in departments provides at least one means of organizing the disciplines in which they feel knowledge, skills, or perspective are needed for international health work. Thus, from the behavior of the schools of public health it may be understood that international health includes knowledge, skill or perspective in behavioral science, social science, biostatistics, demography, epidemiology, environmental health, family planning, population, health administration in-

cluding public health practice and medical care, health education, maternal and child health nutrition, public health nursing, and tropical and infectious diseases.

Overseas Activities

The schools of public health are participating in a wide variety of activities in many other countries. The descriptions of these activities all contain terms of reference that are adequate for identification but are not always specific.

Four schools describe overseas study trips. (See Table 4, page 120.) One study trip focuses upon health services administration. Another study group from the same school focuses upon maternal and child health care. Three other schools have trips that focus upon nutrition problems. The primary beneficiaries of these trips are the participants. Other, lesser beneficiaries are the classmates of involved students, the schools which sponsor the trips and the schools or services visited during the trip. In order to provide appropriate reception of the group and to maintain a high quality of content for the study, the schools negotiate a more or less permanent agreement with the host school or health service. One school states in its catalogue that a "continuing agreement with ... makes possible a special study trip...." The annual influx of students and faculty undoubtedly poses problems for the host school or service, but the infusion of ideas and the stimulus to improved function are benefits that accumulate and last.

Five schools mention or describe projects in other countries. (See Table 4, page 120.) Twenty-six projects are mentioned in such a way that they can be clearly identified. (See Table 7, page 137.) Allusion

is made to other projects that cannot be clearly identified. Projects are listed which involve every continent except Australia. The projects are concentrated, however, in Latin America, the Middle East, and Asia. Projects are most commonly identified with research. The research that is being done seems to be of at least three major types. The first type is traditional laboratory research. In this category might be placed rickettsial disease studies or virus studies that are being done. The second type of research is the field study. Comparative studies and epidemiological studies of many kinds can be placed in this category. In these two types of research the effort is not service oriented although it may be in the community. The major benefits accrue to the researchers or to mankind in general. The third type of research being done is a combination of research and service. This is operational research. In this type, the research is intimately tied to a service that must be performed for or to some population or group of people. The study of the role of nurses or auxiliaries in child health care, and of the functioning of rural health centers are examples of this type. From the projects listed in the school catalogues it is impossible to select any that are strictly service oriented and without research. The schools, for fairly obvious reasons, are not operating philanthropic direct service projects. They may also be saying that the best service always has a research component. But, in doing operational research, the operational component is frequently the bulk of the project and in this way the schools are providing direct benefits to the recipient country.

Study, research and service that is mutually beneficial, occurring across national boundaries, is a part of the definition of inter-

national health that is established by the activities of the schools of public health.

Organization and Administration

Terms of reference are found in catalogues from schools of public health in material which directly concerns internal organization and administration.

Three schools name an administrative officer whose direct charge is the foreign student body. In all three school catalogues, the officer named is a campus or university officer. In one school, an additional officer is named within the school to act as the advisor to foreign students enrolled in the school.

One school names an "Associate Dean of the Faculty of Public Health for International Programs". This officer helps to organize and to coordinate all programs in the school which have international components.

The organization of the school for administering and coordinating international courses or programs is evident in the catalogues from five schools. One school has a Division of International Health which is directed by an Associate Dean. It functions through all departments and programs of the school. One school has established a Department of International Health. Three schools have established a division of international health within departments. One of these is in a Department of Public Health Practice, one is in a Department of Tropical Medicine and International Health, and one is in a Department of Infectious and Tropical Diseases. The latter is designated in the catalogue as being "developmental".

In addition to the internal organization, the schools are also participating in a number of interdisciplinary projects which combine and coordinate research and study by the various schools or colleges of the parent university. Such activities usually have as their focal point a "Center". Three school catalogues in describing centers in which the schools are participating use one or more terms of reference (See Table 4, page 120.) At all three schools a "Center for Population Studies" is described. At one of these schools a "Center for Prevention of Infectious Diseases" and a "Center for Community Health and Medical Care" are also described with terms of international reference.

The development of an organizational framework for organizing, coordinating, and directing the international interests of the school gives an important clue as to how the school considers or defines international health. The effort expended by these schools would seem to indicate that the schools define international health in broad terms, consider that it is becoming increasingly important, and consider a part of the schools' role to be the clarification of the concept and the organization of their own administration to give it permanence.

Summary

Since there is no clear, concise definition of international health to serve as the guide by which the international health activities of schools of public health can be evaluated, the activities of the various schools have been examined in an attempt to establish a behavioral definition for school activities and operations. Utilizing a list of key words as terms of reference, the school catalogues for the year 1970-1971 have been studied. The areas in which key words have been

classified by school and by area or discipline have been tabulated. The areas in which schools of public health indicate that they should play a role in international health might be summed up in the following way:

International health in schools of public health consists of the education of health personnel of three types; (a) foreign health career personnel, (b) U.S.A. students planning for a local, state or national career, and (c) U.S.A. students planning an international career. Appropriate education for these students is found in the disciplines of behavioral science, social science, biostatistics, demography, epidemiology, environmental health, family planning, population, health administration including public health practice and medical care, health education, maternal and child health, nutrition, public health nursing, and tropical and infectious diseases. This education is offered by a faculty having appropriate international experience and is presented to the student in the classroom or by study, research and service, of short or long duration, in an international setting. The organization of the school so that the administration of these activities is appropriately emphasized and facilitated in a way that is compatible with the goals of the school is a unique contribution of each school.

The above definition is not concise and it is not entirely clear. It does give some idea of what international health will be like in the future as the various students affected by the schools of public health assume leadership. This definition is not unlike that proposed by Dean Stephen Bailey for international education.

> The term "international education" may be used to refer to the non-American substance of school and university curriculums in the United States. Under this broad interpretation, all courses in world or alien history, geography, sociology, anthro-

pology, politics, economics, international relations, and law, science, art, letters, language, music, philosophy, and religion can properly be included under the rubric of international education.

Second, the phrase may be used to refer to education provided in the United States for students from abroad.... What we in American education do for and to these visitors--and what they do for us--is most certainly an important aspect of international education.

Third, the United States at any one time has tens of thousands of its own students--and hundreds of faculty--living and studying abroad....

Fourth, international education is used increasingly to refer to the organizing and staffing of educational institutions in newly developing nations by educators from more developed areas of the world.

Fifth, international education is frequently viewed in a reasonably narrow professional sense to refer to the undergraduate and graduate professional training of those intent on careers in international service.

Finally--but I suppose not really finally--international education can be looked at as a problem in adult citizenship: involving attempts made by leading statesmen to educate their following to the complexities and responsibilities of the age in which we live; and the supporting efforts of universities, the mass media, and social, professional, interest group, and civic organizations to increase public understanding of world affairs.

Behind all of these efforts there seem to be three interrelated goals: (1) to prepare men and women for wise public leadership in the sciences and arts of governance in a critically interdependent and rapidly changing and evolving world; (2) to cultivate the soil of civic understanding so that informed leadership can reap enlightened response and constructively critical support from mass political followership; and (3) to heighten the sense of option, variety, excitement, and identity in peoples across the face of the globe whose esthetic and social sensibilities can be sharpened only by insights into the world beyond their familial and neighborhood surroundings.[50]

CHAPTER IV

INTERNATIONAL HEALTH OFFERINGS IN SCHOOLS OF PUBLIC HEALTH: THE TREND

Growth in the scope and content of international health has occurred with special rapidity since World War II (Chapter II). In the World Health Organization, for example, the income from all sources in 1950 was $6,280,427.[51] By 1960, it had grown four-fold to $24,955,666,[52] and, by 1970, it had increased to $116,061,970.[53] The headquarters, regional and interagency staff of the World Health Organization (excluding consultants) has grown from 206 in September, 1948, to 1,481 in December, 1957,[54] and, in November 1969, was 3,317.[55] Similar growth has occurred in budgets and staff members committed to international health work by many nations. There is no reason to believe that the growth will not continue.

Problem

Schools of public health are a major source of the professionally qualified people who are especially trained to function in the varities of settings and tasks of international health. The number of graduate degrees of all types granted by accredited schools of public health in the U.S.A. and Canada was 750 in 1960,[56] and 1,741 in 1970.[57] Although the number of graduates has increased, how have the schools of

public health responded to the increasing demand for personnel informed and qualified in international health?

Method of Investigation

The same nine schools of public health, the subjects of the study in Chapter III, were used as a base to examine this facet of the study. Catalogues or bulletins from these schools were selected for the years 1950-1951, 1960-1961, and 1970-1971. (See Table 3, page 118.) Using the same procedures and definitions that were applied to the study of the 1970-1971 catalogues, data were collected from the 1950-1951 and 1960-1961 catalogues. Tables were developed for these years, 1950-1951 (Table 8, page 139) and 1960-1961 (Table 9, page 144), similar to Table 4 (page 120) for 1970-1971. A summary of the information from the three tables is compared in Table 10, page 149. In addition, the information from the three time periods is compared for each school as shown in Tables 11, 12 and 13 (pages 151, 156, and 161).

Evaluation

The variations noted in catalogues from the nine schools for the years 1970-1971 (Chapter III, page 20) are even more remarkable for the two earlier periods. Two types of variations are noted. In the two earlier years, the differences in origin, location, sponsorship, and historical setting of the individual schools are even more apparent than they are in the 1970-1971 year. Such differences are evident in administrative organization, departmental or course names, stated objectives, and many similar items in the catalogues. These might be called external differences. The second type of variation noted could be considered in-

ternal and vary within each school. These are noted to be changes in course or departmental names, changed systems for granting credits or altered degree requirements, and they become evident as the catalogues from each time period are compared. The first type of variation affects comparability between schools; the second type affects comparability across time within a school.

Although these variations must be kept in awareness in considering the findings, it is felt that, for the purposes of this study, they do not alter the findings.

Discussion

Terms of reference are found in every one of the nine school catalogues for 1970-1971 as shown in Tables 4, 5, and 10, and 1960-1961 in Tables 9 and 10. In only six of the schools, however, are there terms of reference for 1950-1951. (See Tables 8 and 10, pages 139 and 149.) This indicates that these six schools have a tradition of international awareness which extends at least over the last twenty years.

In 1950 catalogues, no school has an administrative officer or an international programs officer, nor is an office listed for either. This is not surprising in view of the fact that few terms of international reference were found in those catalogues. By 1960, four schools had a total of eight entries consisting of 12 items in the administrative category which were related to foreign students. In three of these schools, an administrative officer for foreign students was named, and at one of these, there was an officer for international programs who was called the "Foreign Service Officer". In 1970, eight schools had entries in the administrative category. There were also three schools which

named an administrative officer for foreign students and one which named an international programs officer, but these were not the same schools which carried these entries in 1960. In 1970, there were a total of fifteen entries consisting of twenty-one items in this category that related to foreign students.

General descriptive sections in the 1950 catalogues contain only four entries for a total of five items. Two schools had a term of reference in the statement of school objective. One school had three items in two entries which concerned an international center or facility. In 1960, four schools had seven entries under the designation, general description. Three schools used terms of reference in their school objective. There were also three references to an international facility. In 1970, all nine schools had entries in the general description category; five had entries in the school objective section. Three schools had references to an international department or division, and three mentioned international programs.

Terms of reference in the sections on general information were sparse in the 1950 catalogues. In only two catalogues were any terms recorded. One school entry concerned foreign student information. The other school had entries relating to foreign student orientation and English proficiency. By 1960, there were twenty-five entries from seven schools in this category of general information. The most common entry, six, concerned English proficiency. There were four entries each for foreign student admission, advice on costs, and orientation. Three entries related to housing and three entries of special advice to foreign students were made. In 1970, forty entries consisting of forty-eight

items were found in sections on general information. Eight schools each had a term of reference in its general information. In addition to entries concerning foreign students, there were entries by two schools which presented discussions concerning overseas fellowships for U.S. students.

In 1950, only two schools used a term of reference in presenting programs of study. Both items were found in programs dealing with tropical or infectious disease. In 1960, only one entry occurred in this section, and it was found in a description concerning public health education. By 1970, eight schools made twenty-one entries of twenty-two items in offering their programs of study. Terms of reference were found in programs such as environmental sciences, family planning and population, health administration, health planning, infectious and tropical disease, international health, maternal and child health, nutrition, and public health education.

The description of one departmental program at one school contained a term of reference in 1950. In 1960, a description of the departmental programs at two schools each contained a term of reference. By 1970, descriptions of departmental programs at four schools contained terms of reference. One school had items in five departmental programs, two schools each had items in three departmental descriptions, and one school had items in the descriptions of only two departments.

No items were found in interdepartmental programs offered until the 1970-1971 catalogues were examined. Three schools described interdepartmental programs which contained reference to the designation international. It was not until the 1970-1971 catalogue that a residency pro-

gram was listed as being offered in international health. This recently developed program of the American Board of Preventive Medicine is now available in three schools.

In 1950, six schools had nine entries and thirteen items in the section concerning courses of instruction. There was one item in environmental health, four under health administration, one under international health, and seven in tropical public health. The total, in 1950, was thirteen items. In 1960, there were still only six schools with at least a course offering which contains a term of reference. The number of entries was increased from nine to fourteen and the number of items from thirteen to twenty-six, which was twice the number of items found in 1950. There was one course in demography and one in environmental health. There were ten courses having a term of reference in the departments of health administration at four schools. One school had one offering and another had two offerings in international health. One school had a course in maternal and child health and two schools had courses in nutrition that contained terms of reference. Tropical public health or infectious disease courses in three schools contained a total of eight items. By 1970, the number of entries had jumped to thirty-seven and the number of courses in which a term of reference was found had climbed to eighty-four, and every school had a course with some term of reference. As discussed at length in Chapter III, the courses were offered in behavioral and social sciences, biostatistics, demography, epidemiology, environmental health, family planning and population, health administration and public health practice, health education, international health, maternal and child health, medical care, nutrition, public health nursing,

tropical public health and infectious diseases. The response of the schools of public health to the needs of international health is most striking in this marked increase of course offerings which have some international orientation.

In none of the remaining categories were there any entries for 1950-1951 or 1960-1961. It was only in the 1970-1971 catalogues that terms of reference were found in entries relating to overseas study trips or to overseas projects, to centers having an international component, or to international centers. Faculty members classified as international were not found in either the 1950-1951 or the 1960-1961 catalogues. Five schools named some faculty members "international" in the 1970-1971 catalogues.

This discussion of the findings from the combined schools of public health gives a misleading impression of uniformity and consistency. Examining the entries for the three academic years for each school as presented in Tables 11, 12 and 13 (see pages 151, 156, and 161), reveals that growth has not been uniform in the schools. While three schools had marked increase in the number of terms of reference used, two others had almost no change in the number used. In addition, use of reference terms in a school's catalogues was not always consistent. For example, an item which appeared in the 1950-1951 catalogue was missing in the 1960-1961 catalogue, and reappeared in the 1970-1971 catalogue. In spite of these failings, the over all pattern is remarkably strong.

It is clear from these findings that schools of public health have responded to and are continuing to respond to the need for more qualified persons to meet international health needs. The response is

affirmative, and is reflected both in the increased number of schools that show international awareness (from six in 1950 to nine in 1970), and in the increased number of offerings that have international terms of reference found in each school (from 19 entries of 24 items in 1950 to 167 entries of 322 items in 1970).

Only in the area of foreign students and of a few courses of study are there any findings in the 1950-1951 catalogues. In the ten years from 1950 to 1960, the number of courses which have international awareness was doubled. The number of disciplines covered by these courses, almost exclusively health administration and tropical public health in 1950, was increased from four to seven. There is also a very marked increase in general information, most of which concerns foreign students. The most significant change found in the 1960 catalogues is the beginning of an "administrative awareness" of the international. Three schools named an administrative officer for foreign students and one school named a foreign service officer.

In the ten years from 1960 to 1970, trends of the previous period continued. The number of course offerings with terms of reference increased more dramatically -- trebling instead of doubling,- and the number of disciplines represented extended to more than thirteen. References to foreign students were also increased, but the rate of increase was slowing. The "administrative awareness", however, continued to increase at a rapid rate. Entries concerning foreign students doubled and entries concerning international programs were increased five-fold. New trends became evident during this period. Overseas fellowships and resident programs were offered. The potential of the international field

experience was beginning to be developed. Short trips to an overseas, "field", classroom were developed which were particularly helpful to the student not planning an international career. Experiences of longer duration were developed through overseas programs in which students planning international careers were benefited. The trend to more extensive international involvement was seen in the development of centers for international study, research and training. This larger involvement also saw the beginning of a specific faculty for the international level of health. One of the most striking developments in the schools during this period was the beginning of visible organizational recognition for international health. This was exemplified by five schools which were in various stages of formalizing international health within the school organization by developing a division or a department of international health. It indicates that some schools of public health have completely accepted international health as an area in which they have a major responsibility and for which they need to make permanent administrative arrangements.

The trends demonstrated in the nine schools of public health selected for this study are also evident in other schools of public health. Some of the newer schools, not included in this study for the reason explained in Chapter III (see pages 21 and 22), from the earliest phases of their development planned for international health courses, programs and activities. Some of these schools are experimenting with new ways of introducing international health activities to their students, with interinstitutional sharing of faculty, with mutual responsibility for field activities, or with exchange of students and faculty

in various fields of activity. These developments continue the demonstrated trends and augur well for the future of international health in schools of public health.

In summary, the trend regarding international health in schools of public health, during the twenty years from 1950 to 1970, was one of growth in the number of persons involved, of expansion in the range of opportunities for study, research or service provided them, and of extension of the scope of functions expected from them. This constantly increasing importance of international health activities in school functions, and the development in recent years of a recognized location within the school organization for these activities, indicate that international health is, probably, a permanent part of the generally accepted function of schools of public health.

CHAPTER V

INTERNATIONAL HEALTH PATTERNS IN SCHOOLS OF PUBLIC HEALTH: ORGANIZATION

Problem

The growth of international health since World War II has evoked response on the part of schools of public health in the U.S.A. As was pointed out in the previous chapter, there are increased opportunities for both foreign and U.S.A. students to develop internationally oriented skills in the schools. Course offerings, directly or indirectly related to international needs, and opportunities for short or long term study, research, or service overseas have been developed in the last ten years by the schools. Faculty members with international experience who are directly committed to international health or to international aspects of various disciplines have increased in numbers. This growth of the "international" in schools of public health has stimulated development of the organization necessary to coordinate, administer, and develop various aspects of the programs that have evolved. Indeed, growth of international offerings and activities in schools of public health has been made possible by the development of organizational structures to cope with the varieties of problems involved. Therefore, the question: "How have the various schools organized themselves to cope with these new

courses or programs, and, in view of the unique character of each school of public health, are any patterns discernible in the organizations developed by them?".

Method of Investigation

The nine schools of public health whose catalogues were studied for Chapters III and IV continue as the subjects of this study. The catalogues or bulletins for the academic year 1970-1971 are the primary sources of information concerning each school. In addition to the catalogues, it was possible at various professional meetings and at meetings of the Association of Schools of Public Health to talk with deans and faculty members from the various schools about their programs. Brief visits were made to two schools, The Harvard School of Public Health, and The Johns Hopkins University School of Hygiene and Public Health, to observe their programs. No formal questionnaires were employed but responses of deans, program directors, faculty members and students were carefully noted. Gradually, over the course of two years, it became apparent that certain key words were being used by individuals involved in international health activities at the various schools. These words were institutional commitment, developmental difficulties, visibility, identity, flexibility, functionality, financial stability and clarity, and continuity. These words became a framework for considering the various institutional approaches.

Findings

Collection and comparison of information from the nine schools of public health reveal that patterns of organization or of organiza-

tional development do exist. The patterns are not completely exclusive as various elements of two or more may be found in a given institution. However, the findings seem sufficiently consistent to allow grouping of the international health elements of the schools into four distinct patterns.

The first pattern discernible is that of "non-organization". This might also be called the ad hoc pattern. The institution in which this pattern is found may or may not have a commitment to international health. Whether it does or does not have such a commitment depends upon many factors. Important for this study is the fact that it has not developed an institutional organizational structure for administering the elements of international health in its school. This ad hoc pattern is operational at two levels, namely, the departmental level and the dean of the school level. At the department level there is no institutional commitment. A faculty member or a department chairman may become interested in a particular country or a particular international facet of his discipline. He may then give special attention and study in the area of this interest which gradually becomes incorporated into his teaching or his program. More commonly, the faculty member or department chairman accidently meets a colleague who is active internationally during a professional meeting. In the course of the ensuing conversation, this colleague mentions a program or a special study which involves a trip overseas and he indicates that he is looking for additional members. This sounds interesting to the faculty member or departmental chairman, and when he investigates the possibilities he learns that the study is indeed needing someone like him. Since it will not take too much time away from

the institution and will soon be completed, he applies for a place in the study. Whatever arrangements are necessary are made by the involved person. The ad hoc pattern also operates at the level of the dean of the school. When at the dean's level, there may be slightly more of an institutional commitment, for the dean does represent the school and he can call upon various departments or faculty for participation or assistance. Essentially, however, there is no institutional commitment, and no organizational framework exists for maintaining or supporting the international interest within the school. Whether at the faculty member level or at the dean level, non-organization is the pattern of these schools in so far as the international element is concerned.

The next three patterns all involve institutional commitment. There is a visible, described organizational location and role for international health in each.

The second pattern identified is that of the departmental program. In this pattern, international health is one of two or more major programs of a department. The departments in which international health is a division are departments that have traditionally been involved in international health work. Thus, at Pittsburgh, international health is one of ten defined "programs" in the Department of Public Health Practice (See Table 14, page 166); at Tulane, it is one of two "sections" in the Department of Tropical Medicine and International Health; and at the University of California, Los Angeles, it is listed as a "developmental program" in the Department of Infectious and Tropical Diseases.

The third pattern discernible is that of a full-status Department of International Health. This pattern is found at The Johns

Hopkins University School of Hygiene and Public Health. (See Table 15, page 169.) In that institution it is one of fifteen departments of instruction.

The fourth pattern for international health at a school of public health is a division of international health at the level of the dean's office. This pattern is found at the Harvard School of Public Health where a Division of International Health is directed by an Associate Dean of the Faculty of Public Health for International Programs. (See Table 16, page 173.)

In summary, four organizational patterns for incorporating international health concerns into schools of public health are discernible. These are: (a) the ad hoc pattern, (b) the program or section of a department, (c) the department of international health, and (d) the division of international health of the dean's office.

Discussion

Ad Hoc Pattern

There is a very clear difference in dealing with international health in schools of public health between the first pattern and the other three patterns. The first, or ad hoc, pattern lacks an institutionalized commitment to international health. This is a generalization based primarily upon evidence from the school catalogues. This is certainly not the best basis for comparison, for, in some instances, it is known from conversations with individuals from those schools that the catalogue information is misleading. It is also possible that the institutionalized commitment which is not evident in the catalogue from the school of public health may be present as an institutional commit-

ment at a higher level. For example, there may be a university-wide or a medical center-wide commitment through which the international interests of the school are channeled. The institutional commitment in the ad hoc pattern school may only be one of lesser magnitude. It may represent only the difference between allowing international health activities to occur in the school and effectively aiding them to occur. In any event, there is a fairly clear distinction between the schools having the ad hoc pattern and those having defined organizational patterns. This seems to be the result of different levels of institutional commitment. Conversation with one dean from a school having the ad hoc pattern elicited the following remark, "No, we don't have any department or organization for international programs at our school. If something interesting in the way of a project comes along and a member of the faculty is interested in it, he may want to pick it up. But we have no program for developing those things. Our school is more interested in the local region".

One of the main weaknesses of the ad hoc pattern is its capriciousness. International health entries into the school are rather hit or miss. This capricious approach may develop strengths in some areas while leaving marked weakness in others. The following statement regarding "ad hoc-ism", although made about government support to international projects, is pertinent here.

> Short-term "ad hoc-ism", no matter how well intentioned, has inherent in it the danger of skewing a well-reasoned program, resulting in blocking other fruitful activities, building false hopes, and creating white elephants. These dangers can be avoided only by long-term planning and responsible commitment to the success of any endeavor that is undertaken.[58]

There is a possible advantage to the ad hoc pattern. Since all its

activities depend upon contacts or developments by individuals, any project developed on the ad hoc basis is reasonably assured of individual interest. However, the individual may not be able to give all the effort or attention necessary to carry it to a successful conclusion due to competing institutional responsibilities or demands.

Departmental Program Pattern

The departmental program or section pattern appears to be the simplest organized approach to international health in a school of public health. It is a logical growth of a department whose discipline is traditionally allied with international health development, e.g., tropical diseases or health administration. (See Chapter IV, page 57.)

In its simplest form, it would be the designation of an interested faculty member from an appropriate department to develop the international aspects of his department. Catalogues do not reveal this stage of development. The earliest step shown in a catalogue is the development in an appropriate department of a series of courses with international content which are grouped together under a label of international health. This appears to be the current situation at the University of California in Los Angeles.

The final developmental stage in this pattern is to separate the group of international courses in the department into a program or a section, and to formalize the section status by appointing a "director". This appears to be the current situation at both Pittsburgh and Tulane.

This pattern can be developed with the least amount of institutional commitment. It, probably, has fewest difficulties connected with its development. Depending upon institutional rules, it can be imple-

mented at the departmental level and approved at the dean's level.

This pattern gives visibility to international health through the courses it presents and by the sectional status accorded to the discipline. To some extent its visibility is limited, however, as it is subsumed to and localized in a single department, but the pattern does develop an international health identity. In comparison to the other patterns, this identity is limited in its extent, i.e., the numbers involved, due to its location and status. Intensity of the identity, i.e., the frequency of contacts between identified members, both student and faculty, may be relatively high.

The departmental program pattern appears to be the least flexible of the three institutionalized approaches. Located within a department, its official channels to authority and funds are longer and more complex. Its ability to mobilize resources or to respond to special opportunities are, in most instances, slower. This means that its functionality, i.e., its ability to "get things done", is also less than that of the other two patterns.

The departmental program pattern allows financial stability to the extent that the department is stable and committed to it. Financial clarity of its operations depend in large extent upon the accounting system of the parent institution, but, in general, the limited scope and simplicity of the operation allows reasonable clarity.

Continuity within the departmental section appears, potentially, as much as in any program. It does appear vulnerable to personnel changes due to the limited number of people or school programs involved in it.

In summary, the departmental program or section pattern requires

least institutional commitment and has fewest developmental difficulties. It gives visibility and identity to international health within the school of public health. Flexibility and functionality appear to be less than the other organized approaches. Financial stability and clarity, and continuity are all in a reasonably operational range although dependent upon the department.

Department Pattern

The department pattern appears to be the traditional pattern for organization in higher education. The development of a department of international health is a logical step when the conceptual base of a "discipline" of international health is established.

The department pattern obviously requires a high level of institutional commitment. In most institutions of higher education, the establishing of a new department is not to be undertaken lightly. The usual protocol is long and the usual procedure requires stamina for a successful outcome to be achieved. Assurances of role and responsibility must be given and accepted. Institutional commitment must be present in relatively high degree for a department to be established.

Developmental difficulties are, therefore, high. Problems of relation to existing departments and programs within the school must be clarified. The relationship of the new department to other programs within the parent university must also be established. While these difficulties would vary in intensity from institution to institution, they would be present.

The department pattern gives high visibility to international health within the school. Students and faculty are confronted by it fre-

quently. Outside the school, in other schools of the university, the visibility may be somewhat less, but it is potentially present.

Identity is high in the department pattern, and of the three organized patterns, it is probably highest here. Identity of content is especially singled out and defined. Identity of individuals involved in departmental affairs is easily established, and the ability of students and faculty to identify themselves with international health is enhanced. Inter-personal contacts are relatively frequent and serve to reinforce identity.

The department pattern allows much more flexibility than does the departmental section pattern. The department is able to plan its programs more independently and to function with greater freedom. The crossing of departmental boundaries is achieved with some difficulty and, to the extent of that difficulty, limits flexibility.

In functionality, i.e., the ability to "get things done", the department pattern seems most suited. Although dependent upon the types of "things to get done", the ability to mobilize its personnel and to move rapidly to complete a task are particularly appealing in this approach. The identifiable faculty and staff who are in frequent, close contact have a facility for rapid, coordinated function.

The department pattern seems more stable with regard to its finances than does the departmental section pattern. There is somewhat more autonomy at this point. Compared to a division of the dean's office, however, the department is one step more removed from university resources and is to that extent vulnerable.

In its potential for clarity of its financial operations, the

department pattern appears most felicitous. The departmental budget is an identifiable unit. Costs of functions can be determined with greater facility in the department than they can in other areas of the university. Much depends, obviously, upon the financial operations of the school and the university, but the potential for clarity is there.

Continuity, within the department pattern, can be planned with somewhat greater ease than in the other patterns. There is certainly a greater ability to assure its own destiny than exists for the departmental section or program. There may be greater ability, also, to assure continuity for contractual purposes, although, in most universities, such matters are handled by the school or the university.

In summary, the department pattern requires a high level of institutional commitment and experiences relatively high developmental difficulties. It gives maximal visibility within the school and allows for highest identity with international health. While flexibility may be limited by departmental boundaries, it is very functional. In financial stability, the department pattern is more advantageous than the departmental section pattern, and in potential for clarity of its financial operations, it seems best of the three organized patterns. Continuity is facilitated in the department pattern.

Division of Dean's Office Pattern

The pattern represented by a Divison of International Health which functions under an associate dean for international health programs reflects an alternate conceptual base. This concept affirms that international components exist in all disciplines (departments) and that by combining and coordinating these components a program for international

health is made available to students, faculties, agencies and governments.

The development of a division of the dean's office pattern may proceed from the top down, by the dean requesting each department to develop the international components of its discipline, or from the bottom up, by the combining and coordinating of already existing international components. In either event, there must be institutional commitment sufficiently strong to overcome the many difficulties involved. Authority for such development is necessary from university governing bodies who, amid the clamor of competing elements, are frequently reluctant to embark on any additional project unless it is strongly represented by a dean or a vice president. There are also difficulties in obtaining the cooperation of departmental chairmen who are reluctant to relinquish any part of their departmental function or authority. Thus, institutional commitment is a paramount necessity. Developmental difficulties are, probably, of the same order of magnitude as those found in developing a department.

Visibility is readily achieved by the division of dean's office pattern. The visibility is present in two directions. Internally, i.e., within the school, the visibility is not intensive but rather extensive. That is, rather than being focused intensively in a department, it is diffused extensively throughout the school. Externally, visibility at the dean's office level is found in its relationships and functions with other schools of the parent university or with other universities or government agencies. This external visibility seems to enhance the potential for the development of interinstitutional consortia or of task oriented, multiple disciplinary centers.

In the division of dean's office pattern, identity may be more difficult to achieve than in the department pattern. This depends very much upon the strength of the office, but, as a generality, dispersion of the components into the various departments leads to fewer interpersonal contacts and to fewer structured, identifying functions. In the departmental approach, discipline and program are identical and mutually reinforcing. In the dean's office approach they are separated and, thus, lack internal reinforcement.

The dean's office pattern appears to be a highly flexible approach. By being dispersed into various departments of the school, there are opened up a wide variety of choices which are available to students and a wide variety of channels through which programs may be guided. The multiple departmental involvement would seem to allow for, and to facilitate, considerable mixing of talents in a variety of projects or programs.

In functionality, the division of dean's office pattern appears slow, complex and cumbersome. Dependent as it is upon the coordination of separated units which are widely dispersed throughout the school, its ability to "get things done", when dependent upon unified action, appears weak. It can "get things done" but it seems to take more time and more developmental input.

Financial stability in the division of dean's office pattern is probably on a par with that of the department pattern. Stability might be somewhat preserved in certain circumstances by the dispersion into several departments.

Financial clarity in the dean's office pattern is considerably

less than that of the department pattern. The components bearing international responsibility being dispersed into various departments seem to make financial accountability extremely difficult. Budgeting, when components are dispersed into departmental budgets, is also very difficult. Clarity can be accomplished but only by expending more effort than in either of the other two organized approaches.

Continuity through the dean's office pattern seems more likely than in either of the other two approaches. First, its dispersion make it unlikely that even in the most straitened financial circumstances there could not be some element continuing. Second, its level of operation facilitates the long-range planning necessary to continuity.

In summary, the pattern of a division of international health in the dean's office requires institutional commitment of high order. There are developmental difficulties relating to the institution and to the departments. Visibility is diffused internally within the school but is well focused externally to the university or to other agencies. Identity is not so well defined in this approach but flexibility appears maximal. The capability for function is present in this approach but function is, usually, slow, complex and cumbersome. Financial stability is on a par with other elements of the school, but financial clarity is poor and requires special effort to be achieved. Continuity at certain levels may be slightly enhanced in this approach.

Summary

Organizational response by schools of public health to growth of international health follows four patterns: (a) non-organization or *ad hoc* pattern, (b) departmental program or section pattern, (c) depart-

ment pattern, and (d) division of the dean's office pattern. Each of the last three patterns provides a focus of interest, a locus of operations, and a discernible point of entry into the school of public health for international health interests. The pattern employed by a school depends ultimately upon its particular goals. The choice of a given pattern for organizing its international health interests reflects a school's institutional commitment, its perception of developmental difficulties, and its desires for visibility, identity, flexibility, functionality, financial stability and clarity, and continuity of its international health programs. A summary in which these values are compared for each pattern is presented in Table 17, page 176.

CHAPTER VI

INTERNATIONAL HEALTH IN SCHOOLS OF PUBLIC HEALTH: DEVELOPMENTAL INFLUENCES

Problem

The particular organizational pattern followed by a school of public health for developing international health in its program, as discussed in Chapter V, reflects, basically, the institution's perception of its own needs. The key words used in the discussion indicate the individual institution's understanding of what values are important to it internally and what considerations it deems necessary for it to "get on with the job". Apart from the mention that "the pattern employed by a school depends ultimately upon its particular goals" (See page 77), nothing is said about the many other factors that have influenced the pattern of international health in a school and the timing of its development. The discussion in Chapter V seems to indicate an organized, highly reasoned approach which in most instances has not been the case. In fact, that discussion represents a post hoc evaluation by many individuals involved in the various programs, and it is necessary to beware of falling into the error of post hoc, ergo propter hoc. In order to understand more clearly the international health programs and patterns in schools of public health it is necessary, therefore, to consider the

question, "What are some of the factors that have apparently influenced the time and manner of development of international health in schools of public health?".

Method of Investigation

The nine schools of public health that have been examined in previous chapters in this study were again examined for this chapter. Catalogues, Dean's Reports, and, where available, written histories of the various schools were examined. Even more than in the previous chapter, however, the main method of investigation was discussion with many of the individuals involved in international health programs in the schools of public health. During many professional meetings and at meetings of the Association of Schools of Public Health, it was possible to talk with deans and faculty members from the selected schools about their programs. Of great value were the many opportunities for hearing these professionals discuss among themselves the development and problems and possibilities of their programs. Brief visits were made to two schools, The Harvard School of Public Health and The Johns Hopkins School of Hygiene and Public Health, to observe their programs. At both institutions, deans and faculty members were most gracious and talked freely of their programs. All of the many conversations in these various situations were completely unstructured. No formal list or questionnaire containing items to be covered was used. An attempt was made to avoid leading the conversation or eliciting desired responses to previously arranged questions. Following conversations, notes were made of various ideas gained from them. As these conversations were mostly informal and took place under a wide variety of circumstances, it was not possible to warn

speakers that they might be quoted, and thus few direct quotations are made in this chapter and individual sources of material or ideas are not cited. In all instances, however, the factors elicited were originally named by professionals directly involved in international health programs in a school of public health.

As the number of informal "interviews" increased, so did the number of factors suggested as determinants of international health programs in the schools. Many of these factors were sufficiently similar to be combined into separate groups of factors. Certain factors came up in almost every conversation and it soon became apparent that some of these were the most important, or "key" factors. Thus the ordering of the factors into levels of importance was consciously or unconsciously suggested by individuals actively involved in international programs.

Discussion of Factors

Many different factors have influenced the timing and manner of development of international health in schools of public health. In trying to bring some order to the complex relationships of the factors that are discussed, it is useful to consider the various factors under three arbitrary headings which group them according to their relationship to the schools. These headings are External Factors, Internal Factors and Linking Factors.

External Factors

External factors are those events or occurrences which act upon or are effects of developments within society as a whole. They are usually quite general, or are the reflection of very general influences,

and it is only the perspective of history that gives to them the apparent pinpoint of a specific date. Their primary sources and their primary effects are external to the basic operation of a school of public health, and a school is affected, as it were, only incidentally. They would be active, one might say, whether or not a school of public health existed.

Some of the factors external to the schools of public health which have influenced the development of international health within them are the same general factors that have influenced the development of international health (See Chapter II, page 4). These are migrations, wars, trade, travel, transportation and communications. In many instances these have been remote in time or place, in so far as the schools are concerned, and their effects have been indirect, yet they have exercised profound influence. Some will be more completely discussed in other contexts, but their importance can be seen easily, for example, in the field of transportation. Today, jet airplanes make it possible for a faculty member from a school of public health to travel to India, work three months and return to his post, all in less time than it usually took to reach India by steamship prior to World War II.

Colonial developments. Colonial developments were suggested as having been influential in several ways. In the development and operation of colonies, a demand for trained health personnel was created in Western Europe and the U.S.A. This demand developed its major pressure in the late Nineteenth Century and early Twentieth Century, about 20 years prior to the time the earliest schools of public health were being developed in the U.S.A. (See Table 2, page 117) and thus influenced the general orientation of some of the early schools. The United States of

America became more directly involved in colonial development through the Spanish-American War (1898) which brought Guam, Puerto Rico, and the Philippine Islands under U.S. control. Physicians and sanitary personnel were urgently needed in large numbers following the conflict for the direct operation of health services in those lands, and the new and unusual diseases encountered created the need for research. A major influence, however, because it coincided with so many other developments, was the decolonization which took place following World War II. This painful process affected schools of public health in three ways. First, it made available to the schools a large number of highly trained health personnel who had had years of experience in tropical or primitive areas and who, for varying reasons, were no longer supported in their usual work. Second, the newly independent nations, for the most part exceedingly underdeveloped, needed large numbers of trained health personnel in order to provide and to develop their own health services. Third, these nations appealed to the governments of developed nations, who were seeking their favor, and the governments turned to the schools of public health both for the training of health personnel and for the development of health services and manpower in the developing nations. As noted in Chapter V (See page 63), growth in international health in schools of public health was very rapid in the 10 years from 1960 to 1970. Decolonization was a major impetus to that growth.

Religious developments. Religious developments were cited as having been influential in the growth of international health in schools of public health. The healer has frequently been in the forefront of the expansion of religions and this has been particularly true of

Christianity. The mid-nineteenth century development of marked evangelical fervor which sent waves of missionaries to all areas of the globe produced such people as Livingstone of Africa, and Grenfell of Labrador.[59] But the healing done by the physician at that time was marginal to his main purpose of preaching, of exploring, and of keeping the evangelists healthy. The early part of the Twentieth Century saw a change when the healing ministry was recognized in its own right as a part of the church's function. Dispensaries were transformed into hospitals. Leper "colonies" were developed. Nursing schools, medical assistant schools, and, in rare instances, medical schools were developed. The effects of these institutions were considerable but their rapid growth posed serious economic problems for their sponsoring churches. The ensuing depression years brought financial collapse to most church related institutions and forced them to become more self-supporting or to seek local government support. The destruction of World War II, which followed the depression, left many mission institutions in such disarray that they were never re-established. The hospitals that were rebuilt were caught up in modern technological developments that multiplied significantly the expenses involved. The Communist take-over in China, which occurred very early and most rapidly in major health and educational institutions, brought marked disenchantment among religious groups, particularly in the U.S.A., for any institutional development and forced the beginning of a serious rethinking of the whole mission of the church. A part of the result of this self-analysis was a more rapid turnover of mission hospitals and schools to the local government. Due to this trend, many physicians with long experience in other nations returned to the U.S.A. where they became avail-

able to the Public Health Service, the Bureau of Indian Health, and to schools of public health. Another part of the result of the self-analysis by religious groups was that mission physicians became more involved in the development and extension of health services to larger population groups which resulted in increasing emphasis upon preventive programs or public health programs. Some of these men returned to schools of public health for training and their presence stimulated international interest and awareness. A few of these men have remained in schools of public health in order to develop international health programs.

Nationalism and national sense of mission. It was frequently stated by a number of individuals that schools of public health, no less than other public institutions, reflect the social milieu of each historical period. The War of 1812, the bitter Civil War (1861-1865), and the Spanish-American War (1898) influenced the development of schools of public health through the social setting created and by the impetus furnished in bringing the schools into existence. The Monroe Doctrine (1823) and the sense of "manifest destiny", first expressed in the U.S.A. in 1845, were part of the common setting of growing nationalism in which the schools developed. This background of nationalism was further enhanced in World War I, when the U.S.A. fought "to make the world safe for democracy", and in World War II, when the U.S.A. fought "to save the world from dictatorship". The post World War II period witnessed particularly strong evidence of a national sense of mission on the part of the U.S.A. in the Marshall Plan and other international programs and alliances. International health programs in schools of public health in the U.S.A. represent, in some instances, an expression of this national

sense of mission.

Growing nationalism and national sense of mission in most developing nations have influenced international health programs in schools of public health in the U.S.A. by creating a demand for skilled health personnel and by seeking the education of their own nationals. Most nations that have come into existence since World War II have, with remarkable similarity, given top priority to the development of a national airline and the creation, if one did not exist, of a medical school. These institutions function with a large number of expatriate personnel until nationals are available to operate them. There is almost no other rationale to this pattern except that of "national pride". As the U.S.A. was not a major colonial power, it has received a large number of the appeals for aid in developing medical schools and health services in these countries. The response has been a significant stimulus to the development of international health programs in U.S.A. schools.

National needs. Of the various factors influencing the development of international health in schools of public health some of the most frequently mentioned were those which related to items that were perceived as national needs. These needs varied widely and the perception of their significance depended upon individual experience. Among national needs mentioned were specific interests, war and defense, disease controls, intergovernmental programs, commercial needs, industrial needs, and organizational or administrative needs.

Two examples of specific national interests which stimulated international health interests were the control and operation of the Philippine Islands and the building of the Panama Canal. From 1898 to

1946, the Philippine Islands were controlled by the United States. Early military control was gradually turned to civilian control with corresponding changes in responsibility for health services. Victor Heiser[60] dramatically recounts the disease problems and the development of many of the health services in the islands. The building of the Panama Canal, 1904 to 1914, created marked interest in the U.S.A. concerning the control of diseases in tropical areas. The earlier failure of the French, primarily due to yellow fever and malaria, dramatically emphasized the significance of the sanitary engineering of Dr. William Gorgas. Early international health interests in schools of public health resulting from these examples were represented in environmental sanitation, public administration, and tropical public health. (See Chapter IV, page 58.)

Many war needs or defense needs were cited as influences to international health programs. The global nature of World War II was a marked stimulus to tropical public health in schools of public health. For example, prior to that war British and French textbooks predominated in the field of tropical medicine but, following the war, tropical medicine textbooks from the U.S.A. had joined the leaders. Need for basic knowledge concerning the epidemiology of diseases not found in the U.S.A. stimulated the development of military and governmental research centers around the world. Many of these centers are directly related to schools of public health. For example, three of the five International Centers for Medical Research and Training are related to a school of public health.

Disease control programs or quarantine programs have been a major influence upon the development of schools of public health and were

some of the early activities that provoked international attention by them. The flood of immigrants arriving in the U.S.A. in the late Nineteenth Century brought with them all kinds of diseases. The attempt to prevent the immigration of diseased people and the importation of additional diseases is vividly described by Victor Heiser.[61] He recounts in detail how it was finally decided to establish medical facilities at ports of embarkation in other countries and to require a physical examination of all immigrants. He tells of the difficulties encountered in writing necessary legislation, and he emphasizes the need for specially trained personnel in implementing it. In succeeding years, other disease problems affecting the U.S.A., such as Yellow Fever and Venezuelian Equine Encephalitis, have found their solutions in control programs sponsored by the U.S. government in the lands of their origin. These programs are a continuing influence upon the schools of public health in their need for health personnel with international orientation.

Specific intergovernmental program needs have also been important stimuli to international health programs. The United States Agency for International Development programs in many lands have involved important health components. Many of these programs utilized trained health personnel from schools of public health. Programs in India, Ethiopia, Nigeria, Iran, Lebanon and many Latin American countries were among those named as specific sources of impetus for international health programs in schools of public health.

Commercial needs mentioned as stimuli to international health programs were few. Particularly noted, however, were programs utilizing surplus crops. The Public Law 480 programs in India, Yugoslavia, Greece,

Palestine, Tunisia, and many other countries not only utilized many skilled people, such as administrators and nutritionists, in their direct service, but also generated funds which have continued to be used to develop health programs and to train health manpower.

Industrial needs have served as stimuli to program developments in some schools. Among the U.S. industries whose activities involve the economies of many lands might be named those involved with oil, tin, rubber, aluminum, iron, coffee, bananas, food oils, and many more. Some of these industries, who operate large plants overseas, have developed extensive medical and public health programs. The Arabian American Oil Company in Saudi Arabia (ARAMCO), for example, has an extensive health program which utilizes a large number of highly trained health personnel. It also operates training programs locally and provides a number of scholarships for the overseas training of Arabian health workers. A number of U.S. industries, having large overseas operations, hold periodic conferences at some schools of public health on health problems of mutual concern. The Sixth Conference on Industry and Tropical Health sponsored by the Industrial Council for Tropical Health at the Harvard School of Public Health in 1966 is an example of such a conference.[62] These conferences stimulate interest in special problems and encourage research by students and faculty.

Need by government services for highly trained personnel to organize and to administer the various national programs having international importance has stimulated international interests in schools of public health. Examination of the degrees held by men and women in nationally responsible positions in health or health related programs re-

veals that a significant number originated in schools of public health. The education of these individuals and their success in their work is a stimulus to the schools. The frequent return of these individuals to their school while seeking additional staff for their international work serves as an added stimulus for international programs in the schools.

The variety and extent of all these national needs make them, probably, the most important group of external factors which stimulate the development of international health programs in schools of public health. The way by which their influence is made known to the schools will be discussed in a later section.

Internationalism and world awareness. The growth of internationalism and an increasing awareness by more people from every land of their world-wide involvement are important factors. As pointed out in Chapters I and II (See pages 1 and 4), this growth has occurred mainly in this century and has been especially rapid since World War II. This awareness of the world setting of our existence and the increasing existence of functions cutting broadly across international boundaries provide a milieu which is increasingly favorable and encouraging to the development of international programs in schools of public health.

International needs. The growing internationalism and world awareness have stimulated the creation of organizations to work at solving international health problems. The World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the Food and Agricultural Organization of the United Nations (FAO), and other "official" international organizations have been instrumental in bringing increased awareness of needs that exist, and have in their own development and

function created organizational needs. For example, the World Health Organization has a wide range of responsibilities, almost all of which, at some point, relate to expertise gained in schools of public health. WHO work can be divided into three parts: (a) central technical responsibilities, (b) services to governments, and (c) organizational operations.[63] For meeting central technical responsibilities and for its organizational operations, WHO is dependent upon schools of public health for a large part of its skilled personnel. Epidemiologists, biostatisticians, health educators, public health microbiologists and immunologists are only a few of these. In its services to governments, WHO provides or arranges for expert consultants, gives short duration help with specific problems and aids in making long range solutions possible by assisting with the training of nationals for special, needed functions. The expert consultants are very frequently faculty members from schools of public health. Other official organizations perform similar functions in the area of their interest and many of their specialists also come from schools of public health. In addition to these official organizations, there are a number of voluntary organizations, such as the Rockefeller Foundation, Ford Foundation, Kellogg Foundation, and the American Mission to Lepers, that are also trying to meet some of the international needs. These organizations, being less encumbered with governmental ties or official restraints, are able to be more involved in the development of programs or the calling of special need to public attention. They, too, utilize personnel from schools of public health or turn to them for the special education of particular groups or individuals. As a stimulus to the development of international programs in

schools of public health in the U.S.A., these international needs were rated a close second to national needs.

In summary, the external factors cited by professionals in international health as influencing the development of programs of international health in schools of public health are colonial developments, religious developments, nationalism and national sense of mission, national needs, internationalism and world awareness, and international needs. By consensus, the most influential of these factors appears to be national needs.

Internal Factors

Internal factors are those influences to the development of international health programs that originate or exist within the school or university operations. They occur only because the school or university exists and thus makes it possible for them to occur. In a sense they form the means for responding to the stimulus of the external factors.

Traditional interest of the university. An important factor which was mentioned by a number of individuals was the general "atmosphere" of the parent university. Some universities were mentioned as having a traditional orientation to international or world affairs. This orientation was related to the particular location of a university or to special events surrounding its founding, and seemed to permeate most functions of the university. In such a setting, a school of public health was more likely to receive an early mandate to international health involvement. One faculty member in an international program in such an institution remarked, "It was expected of us".

Goals of the school. The influence of the goals of a school

have been previously noted (See Chapters III, IV, and V, pp. 20, 53 and 63) but their importance needs to be re-emphasized here. Goals of a school of public health that are broad, that include the widest latitude in their stated responsibilities, offer the possibility for international health programs but are no guarantee that such programs will develop. However, goals that are narrow, that are local in their vision, preclude the development of international health programs or markedly limit them. This limitation was mentioned by several faculty members and at least one dean.

Existing courses. Existing courses were considered influential in the development of international health in a school of public health by a number of persons. Individuals who cited this as a factor seemed to mean that some courses in a curriculum cover a type of material or subject matter that leads more readily to international considerations and that such a course existing in a school facilitates the development of an international program in the school. As noted in the previous chapter (See Chapter V, page 63), one of the patterns for organizing international health in a school of public health is that of the division of the dean's office. In that organizational pattern, the presence of appropriate courses, which cover part or all of the international aspects of their disciplines, greatly facilitates the coordinating of those courses into an identifiable international health program. One of the early steps in developing international health in a school of public health appears to be the development of courses whose material normally cuts across national boundaries. (See Chapter V, page 63.)

Existing international programs. Some universities have area

studies programs that specialize in a cultural or a geographic region and, therefore, have international programs in the study area. When such a program exists, it is not unusual for the entire university to be "mobilized" for participation in the program and to have exchange agreements with a university in the area. In some situations the area study is the focus of a consortium of several U.S. universities. When a school of public health is in a university with such a program, its prospects for developing international interests are enhanced. In universities where such a total program does not exist there may be programs in other schools of the university, for example, the medical school, in which participation of the school of public health is encouraged and facilitated. An existing program in the parent university was cited by several persons as a very important factor in the development of international programs by the school of public health.

Teaching needs. Teaching needs were mentioned as having contributed to development of international health involvement, but were not considered sufficient to bring it by themselves. Stimulating needs cited by several persons were in the fields of tropical medicine, nutrition, parasitology, and health administration. In the last named discipline, the need for comparative study of the various national systems of health services and medical care was given as an example. Intercultural aspects of health and disease were considered very important by numerous individuals. While their effects were thought to be seen best internationally, consensus of at least one group was that students related them better to their own anticipated function when they were studied locally or within the confines of the state or nation.

Developmental funds. The need for the school of public health desiring to develop international programs to have developmental funds of varying amounts was frequently cited. This was not so frequently stated in the affirmative as it was in the negative statement, "We didn't have the funds to develop it". A wide variety of sums were mentioned. All were related to the type and size of program being developed and what was being included in it. The point that was frequently made was the need for "mobility" on the part of the school, which seemed to mean that the school should have sufficient unencumbered funds to be able to take advantage of an appropriate opportunity that is presented to it. The use of these funds to develop "key" interests or to obtain a "key" individual as "groundwork" for an international program was cited, in this context, as their most important function.

"Key" interests. "Key" interests seemed to be one of the two most important internal factors in developing international health programs. By this expression, most persons using it seemed to mean a more than average interest on the part of an individual, a department, an administrative officer, or a school in a subject or discipline naturally or normally containing a large international aspect which coincided with current national or international interests. The impression was gained that, while the interest was internally determined by needs or affairs within the school, whether or not it was a "key" interest was related to what was currently in vogue generally. Several examples were given for this factor. One frequently cited was the field of international demography which became a "key" interest when population problems were finally brought to the consciousness of people and governments.

"Key" individual. The single internal factor named most frequently by faculty members and deans as contributing to the development of international health programs was that of the "key" individual. Compared to the other internal factors, in most discussions the "key" individual was the sine qua non. The "key" person mentioned seemed to come from many different backgrounds. Professionally, most, but not all, were physicians. They seemed to be individuals of wide experience and many skills. All had had overseas service in one or more countries for varying periods of time. The overseas service had included varying periods at different levels of health care, corresponding to local, state and national levels. Most seemed to possess better than average administrative and organizational talent. While some seemed to have a special "aura" or "charisma", many did not and this was not considered essential. What did seem to be essential was a rare talent for empathy with others of differing cultural background and an ability for communicating this. Coupled to this, or a part of it, was the ability to establish interpersonal relationships quickly. Most would be better than average salesmen. It is apparent from this that a "key" individual is unusual, and relatively rare. He is vital to the development of a successful international program. On almost every occasion when the "key" individual was being discussed the conversation ended with the refrain, "If you have the key person, you don't need to worry about the rest of your program".

In summary, the internal factors most commonly mentioned by faculty members or deans as contributory to the development of international programs in a school of public health were: traditional interest of the university, goals of the school, existing courses in the school, exist-

ing international programs in the university, teaching needs, developmental funds available, "key" interest present, and a "key" individual.

Linking Factors

The various developments and needs occurring in the external environment, that have been grouped together as "external factors", must be communicated to the schools of public health in order for them to respond. The mechanisms of this communication are arbitrarily labeled, "linking factors".

The one major linking factor is the variety of funds that are made available to the schools of public health. Funds represent, in essence, created surplus of energy which society, or parts of society, wish to direct toward specific developments or toward meeting specific needs. In this sense, they represent, in ratio to total societal expenditures, a fairly accurate measure of what society perceives to be important and just how important it is perceived to be.

Funds utilized by schools of public health in the U.S.A. for various international health programs generally come from four sources; U.S. government, international organizations, industry, and foundations.

U.S. government funds. Federal funds that stimulate and support international health in schools of public health have several sources in the United States government. (See Table 18, page 177.) The Office of International Health of the Public Health Service (PHS) in the Department of Health, Education and Welfare is an important source.

> The Office of International Health of the Public Health Service was established to coordinate and give general direction to all Service activities in the international health field; to maintain liaison with agencies in this field; to represent the Service in international health conferences; to direct a program on inter-

> national exchange of health personnel and educational material; to draft sanitary conventions and regulations and health reports required by international agreements; to collect and distribute data relating to foreign medical and health institutions; to supervise special health missions to foreign countries; to advise the State Department regarding development of plans, programs, and policies for consideration by the World Health Organization; and to advise the Surgeon General on international health matters.[64]

In addition to direct and indirect funding through the Office of International Health, important funds assisting international programs in schools of public health are channeled through the National Institutes of Health and the Health Services and Mental Health Administration. These latter funds are directed primarily to research and training. They have made possible the development of International Centers for Medical Research and Training, and many research studies on specific disease epidemiology. Thus, directly and indirectly, funds from the Public Health Service have been supportive to schools of public health.

Another important source of federal funds is the Agency for International Development of the Department of State. The U.S.A. became significantly involved in bilateral international health programs following World War II. In 1955, three agencies that had been formed to guide various programs, the Mutual Security Administration, the Foreign Operations Administration, and the Institute of Inter-American Affairs, were joined together to form the International Cooperation Administration. In 1961, the International Cooperation Administration was reorganized into the present Agency for International Development (AID). Of this program, Hanlon states:

> From the beginning the program has had four chief areas of emphasis: (1) the development of local health services through health centers; (2) the sanitation of the environment, with particular emphasis on water supply, sewage disposal, and insect control;

> (3) the training and full-time employment of professional public health workers; and (4) the education of the public in health matters. It has stressed complete community health development under full-time trained direction with active community participation.[65]

In 1967, President Johnson called for a "massive attack on hunger, disease and ignorance in those countries that are determined to help themselves". In line with this proposal, four long-range objectives for AID health assistance to developing countries were defined as follows:

> (1) The eradication and control of killing and debilitating diseases that sap the human resources of these countries;
>
> (2) The progressive elimination of malnutrition among mothers and children;
>
> (3) Participation in world-wide efforts to reduce the pressures of relentless population growth; and
>
> (4) Development of training and research facilities in the developing nations to provide manpower to run their health programs.[66]

Although funds from the Agency for International Development go into many areas other than health, health development has been an important component supported by it. For example, in 1967 health and sanitation projects of AID cost $109,672 million.[67] One of its most significant programs has been that of giving advanced training in the United States to professional health workers from other lands. In 1969-1970, forty-seven of the 1,741 graduates from schools of public health were sponsored by AID.[68]

The Peace Corps, which is related to the Office of the President through the Department of State, sponsors some students in schools of public health, and provides some funds to schools of public health for specific international projects. It has also used personnel from schools of public health in a number of its own training programs for new volun-

teers.

The Department of Agriculture provides sponsorship for students in schools of public health particularly related to training for quarantine service and certain research projects. It also controls significant foreign funds through its Food for Peace Program. These funds are available in certain countries from the sale of surplus crops under Public Law 480. The funds, which can only be spent in the recipient country with its concurrence, have aided the development of a number of international health projects by schools of public health.

The Department of Defense and the various branches of the armed forces, while usually operating their own programs, occasionally utilize personnel from schools of public health in them. On some occasions, they provide funds to the schools for research on specific problems in which they are interested. Since the armed forces operate around the world, these needs frequently have an international focus and, thus, serve to stimulate international development of school programs.

Several other agencies of the U.S. government, such as the Department of the Interior, the Department of Commerce, the Department of Labor, the National Science Foundation, the Export-Import Bank, and the Veterans Administration, also sponsor international health activities, but were not mentioned as ordinarily influencing programs in schools of public health.

International funds. International organizations that are significant sources of funds, directly or indirectly, for schools of public health in the U.S.A. are the World Health Organization and the United Nations Children's Fund. The funds from these organizations that are

directly influential upon schools are limited, and are usually related to services rendered by the schools such as the development and maintenance of laboratory "reference banks". More funds, so far as U.S.A. schools are concerned, are indirectly influential. The development programs in many lands are an example of this. These programs use short or long term consultation by many faculty members in the project countries and, thus, indirectly benefit the schools from which they originate. Another indirect influence is the fellowship and study program of these organizations. From 1947 to 1956, WHO and UNICEF granted a total of 6,396 fellowships,[69] and, from 1957 to 1966, a total of 17,396 were given.[70] The 1970 regular budget of WHO contained the sum of $6,099,311 for education and training. This represented 12.47 per cent of its regular budget.[71] A number of these fellows visit U.S. schools of public health. In 1970-1971, fifty-seven of the 1,741 graduates of schools of public health in the U.S.A. and Canada were sponsored by WHO.[72] The presence of these foreign students in U.S. schools is a valuable stimulus to international interest.

Industry funds. Funds from industry are channeled to schools of public health directly from donor corporations or indirectly through various foundations. Direct funds are usually fairly circumscribed in how they may be used. They are generally for three basic purposes: scholarships for U.S.A. and foreign students to meet specific needs in the country in which the donor has important interests; various types of basic science or service research projects; and sponsorship of special conferences on subjects of interest to the donor or the country in which it has interests. One dean of a school of public health voiced the im-

pression that industrial funds were more influential than they appeared to be and that increasing international business developments would bring increasing support from this fund source.

Foundation funds. Foundation funds originate from industrial or family gifts or bequests and from investment returns on those funds. The foundation is usually guided by a board of trustees or directors, and the use of foundation funds is determined by basic purposes of the donors and policies established by the trustees. Of the many foundations in the U.S.A., eight are of major importance in international health activities. These are the Rockefeller Foundation, the Ford Foundation, the Population Council, the Kellogg Foundation, the Milbank Memorial Fund, the China Medical Board, the Commonwealth Fund, and the Macy Foundation.[73] As an example of the influence of foundations, the Rockefeller Foundation is without equal. It was chartered in 1913 in order "to promote the well-being of mankind throughout the world".[74]

> In the mid-1960's, the program of the foundation was directed toward five goals: the conquest of hunger, the solution of problems of population, university development, equal opportunity, and cultural development.[75]

From its beginning to December 31, 1964, the foundation has appropriated more than $836,000,000.[75] Of more concern to this discussion was the work of the Rockefeller Foundation's International Health Division (IHD).

> It threw the weight of the Rockefeller millions into the founding of the first and second schools of hygiene and public health, at Johns Hopkins and Harvard, and subsequently helped similar schools throughout the world. The Foundation then sent young doctors to these schools for modern training.[77]

This was only a part of the work of the IHD, however, as Williams summarizes:

> When the Foundation brought its International Health Division to

> an end in 1951 after thirty-seven years' operation at a cost of $94 million, the public health gains of Foundation-government partnerships were obvious. The world had become health-minded. Death rates from infectious diseases had declined almost everywhere. Malaria had disappeared from the southern United States and from some areas of the world where the Foundation had done effective work, though it still took its toll elsewhere. Yellow fever had ceased to be a human problem,....[78]

Other foundations have followed the Rockefeller example and funds from these sources are a major influence on international health programs in schools of public health.

Three other factors are included in the category of linking factors. These are location, scientific developments and availability. They are considered as minor factors, or, perhaps more appropriately, as "filters" which determine where, when and how funds are directed to the schools of public health.

Location. Location of a school of public health was cited as an important factor in determining its interest in international health and funds directed to it. Two aspects were noted. First was the location of the school with regard to governmental or intergovernmental centers. Proximity to the funding source in Washington, D.C., was the reason given by one faculty member for a special federal grant to his school. Second was the location of the school with regard to traditional international centers or to extremely varied intercultural problems. The individual citing the first of these was in a school located in a historic international seaport, and the one mentioning the second was in a school in a large city with strong East-West cultural components. In these instances, funds were given to the schools because of their ability to work on different aspects of international health problems, particularly the intercultural, without having to travel great distances.

Scientific developments. Scientific developments were given as factors determining availability of funds for schools of public health by a number of individuals. They indicated that the scientific developments occurred in fields in which the school had traditional interests and in which international needs had existed but that it was not until some specific development had occurred to stimulate interest that funds were given for an international program. Developments in leprosy investigation were given as an example by one person. Many individuals named population problems and recent stimulus received by the development of the IUD and "the pill" as practical control measures.

Availability. Several individuals stated that a major reason why their school had received special funds for an international program was the fact that they had an appropriate geographic area or cultural setting available to them. In some instances, a department of the school was already involved in an appropriate area, in another instance, the medical school of the parent university was working on a project in the area. "Availability" was the word used to express the fact that much preliminary development had already been accomplished in the area by others and that the school had access to much of the information, facilities, experience, or rapport in a way that enhanced its work and shortened the duration of its project. This factor was said to be very important when the proposed program was in a country or location where, for nationalistic or other reasons, the people were suspicious of strangers, or of Americans.

In summary, four factors influence international health in schools of public health by acting as linking factors. The major one of

these is financial: the funds given the school. The other three factors, location, scientific developments and availability, are influential in determining the distribution of the funds.

Interaction of the Factors

The factors which influence the development of international health programs in schools of public health are dynamic. They are constantly influencing and being influenced by each other. They may be mutually supportive, or additive, or they may have a reciprocal relationship. The relationship of two factors may be more important than either of them. Figure 1, page 105, is an attempt to illustrate the interaction of the factors.

The whole figure, the school of public health and the external factors which are named, are all considered in the general web of history, social developments, current movements, wars, migrations, etc., which constitute the general setting.

In the figure, the national needs are seen as a direct, major influence upon the U.S. government and as a minor influence upon international needs, international organizations, industries and foundations. In the same way, international needs are a major influence upon international organizations and a minor influence upon the U.S. government, industries and foundations.

The U.S. government responds to national needs by making funds available to meet those needs and, to a lesser degree, stimulates international organizations, industries, and foundations to provide funds. It may, also, provide some funds to those organizations or channel some funds through them. Similarly, international organizations respond to

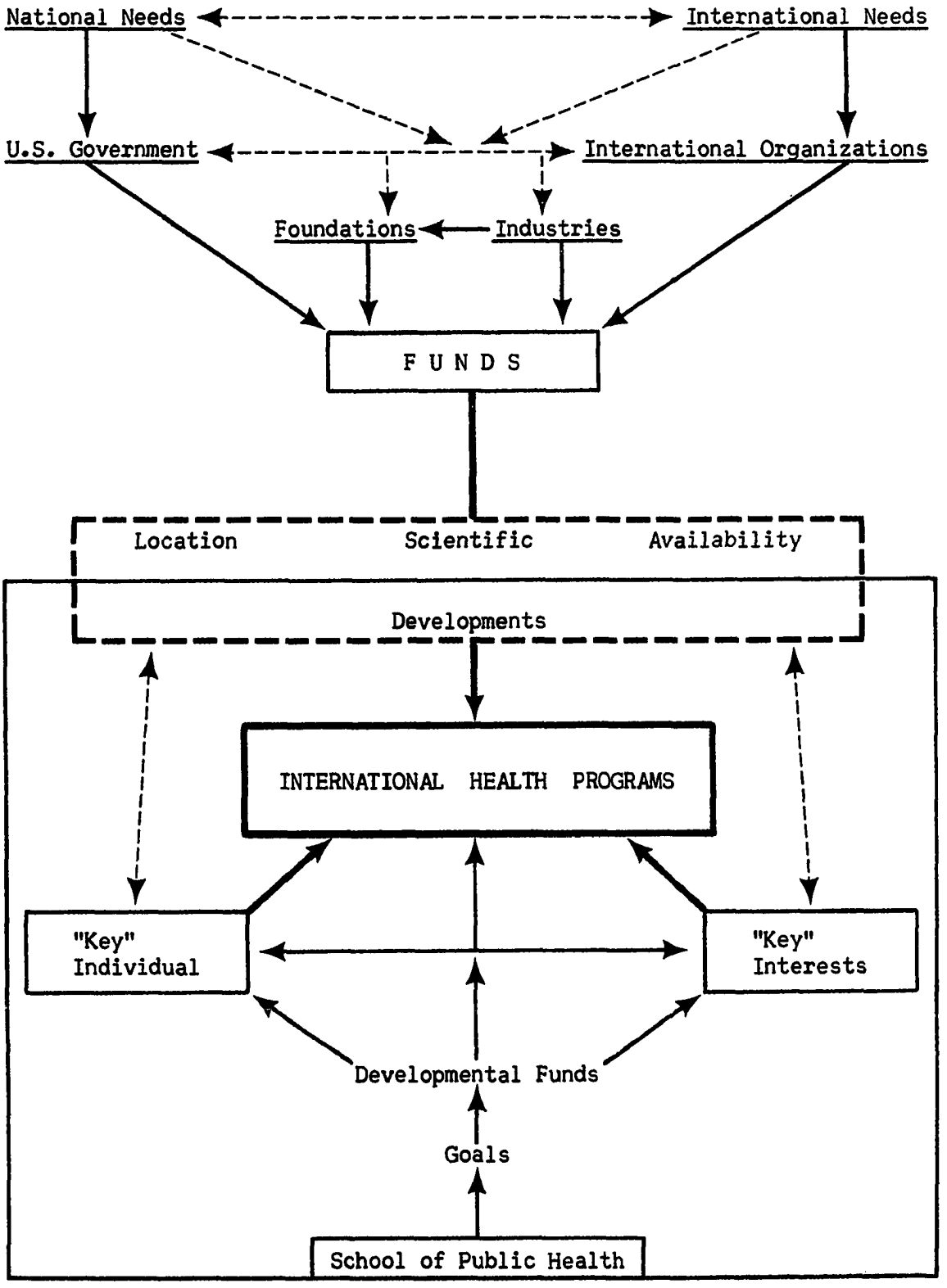

Figure 1 - Interaction of factors influencing the development of international health programs in schools of public health in the U.S.A.

international needs directly by making funds available to meet the needs or by stimulating the U.S. government, industries, or foundations to make funds available to meet the needs. Industries and foundations may be instrumental in making the U.S. government or international organizations aware of needs, or may actually develop models or "pilot" projects that show them a way to respond. Industries and foundations may also respond to international or national needs, or to the U.S. government or international organizations by making funds available. Industries may respond directly with funds, or indirectly by making funds available to foundations. Foundations usually respond directly.

The figure shows clearly that the single major factor which communicates external needs to the school of public health, in a way that allows it to respond, is the fund of money available to it.

Within the school of public health, the figure shows that the school develops its own goals. Although not shown, these goals must be in keeping with its public and university mandate. These goals determine how the school will utilize its developmental funds. In deploying its developmental funds, the school may try to obtain a "key" individual or to develop a "key" interest. At a particularly appropriate time, it may employ the funds to develop an international health program. The figure shows that the two most important internal factors contributing to the development of international health programs in the school are the "key" individual and the "key" interest.

The figure shows that the two factors, "key" individual and "key" interest, act directly upon the international health program, but it also shows that they act indirectly for the school by determining, to

a limited extent, the development of the minor linking factors relating to scientific developments and availability. It also shows that location, scientific developments and availability influence what may be considered a "key" interest and who may be considered a "key" person.

The three factors, location, scientific developments, and availability, are shown in the figure to be functioning both within the school and its external environment. Funds contributing to the development of an international health program for the school are shown as coming through or being influenced by those three factors.

The interaction of the various factors are important considerations for any school of public health that has broad goals which include international health. The school, in keeping with its goals, can consistently utilize its resources to obtain "key" individuals and to develop "key" interests. It can learn to profit from its location, to avail itself of appropriate programs available through the parent university, or other colleges, and to apply itself to the scientific tasks of its time and place. The school of public health has little influence upon funds available for international health. By making the most of those factors upon which it does exercise some control, the school can increase the likelihood that some of the funds that are available will come to it.

Summary

Many factors influence the development of international health in a school of public health. External factors are colonial developments, religious developments, nationalism and national sense of mission, national needs, internationalism and world awareness, and international

needs. Internal factors are a traditional interest of the university, goals of the school, existing courses in the school, existing programs in the university, teaching needs, developmental funds available, "key" interest present and a "key" individual. The major factor which "interprets" the external needs to the school are funds. Distribution of funds is influenced by three internal-external links of the school: location of the school, availability of area or program, and scientific developments. The three most important factors which influence the development of international health in a school of public health are funds, "key" interests and a "key" individual.

CHAPTER VII

CONCLUSIONS

Although no clear, concise, inclusive definition of international health is available, each school of public health has established an operational or behavioral definition for itself. This definition varies from school to school, but in general it is as follows:

International health for schools of public health consists of the education of health personnel of three types; (a) foreign health career personnel, (b) U.S.A. students planning for a local, state or national career, and (c) U.S.A. students planning an international career. Appropriate education for these students is found in the disciplines of behavioral science, social science, biostatistics, demography, epidemiology, environmental health, family planning, population, health administration including public health practice and medical care, health education, maternal and child health, nutrition, public health nursing, and tropical and infectious diseases. This education is offered by a faculty having appropriate international experience and is presented to the student in the classroom or by study, research and service, of short or long duration, in an international setting. The organization of the school is a unique contribution of each individual school, and is structured so that the administration of these activities is appropriately emphasized and facilitated in a way that is compatible with the goals of

that school.

Between 1950 and 1970, the response of schools of public health to the increased demands of international health was one of growth in the number of people involved, of expansion in the range of opportunities for study, research or service provided them, and of extension of the scope of functions expected from them.

Organizational response by schools of public health to growth of international health follows four patterns: (a) non-organization or ad hoc pattern, (b) departmental program or section pattern, (c) department pattern, and (d) division of the dean's office pattern. The last three patterns provide a focus of interest, a locus of operations, and a discernible point of entry into the school of public health for international health interests. The pattern employed by a school depends ultimately upon its particular goals. The choice of a given pattern for organizing its international health interests reflects a school's institutional commitment, its perception of developmental difficulties, and its desires for visibility, identity, flexibility, functionality, financial stability and clarity, and continuity of its international health programs.

Factors influencing the development of international health programs in schools of public health are separated by their relationship to the schools into three general types: (a) external factors, (b) internal factors and (c) linking factors. External factors cited are general developments, colonial developments, religious developments, nationalism and national sense of mission, national needs, internationalism and world awareness, and international needs. The most influential

of these factors appears to be national needs. Internal factors influencing international health program development are traditional interest of the university, goals of the school, existing courses in the school, existing international programs in the university, teaching needs, developmental funds available, "key" interest present, and a "key" individual. The most influential of these factors appear to be the "key" interest and the "key" individual. Four linking factors are influential as they serve to relate the external needs to the schools. The major one of these is financial, i.e., the funds given the school. The other three factors determine distribution of the funds. These factors are the location of the school, current scientific developments, and availability of appropriate program area. The factors that appear to be most influential in determining the development of international health programs in a school of public health in the U.S.A. are the funds made available to the school, and the "key" interest and a "key" individual within the school.

From these conclusions it is recommended that each school of public health, in keeping with increased demands in the field of international health:

(1) continue to clarify and refine its operational definition of international health;

(2) continue to expand its opportunities for the education and training of both domestic and foreign health personnel in international perspective or for international service; and

(3) continue to explore or to develop that pattern of organizing international health within the school of public health which is

best suited to the goals and capabilities of the school.

It is further recommended, considering the influential factors that have been identified, that a school of public health in the U.S.A. desiring to have an organized international health program should develop a strategy for development which might include the following steps.

Step 1 - Clarification of goals regarding international health, including recommendation (1) of the preceding paragraph.

Step 2 - Identification of the strengths and weaknesses of the location of the school regarding international health.

Step 3 - Determination of the direction and trend of current scientific developments, and identification of those in fields in which the school has strength or might reasonably anticipate developing strength, and which are most appropriately a part of the school's anticipated international health program.

Step 4 - Identification of existing international programs in other segments of the university or in other regional universities with which reciprocal relationships already exist in order to confirm availability of appropriate program areas.

Step 5 - Identification of national and international needs to which the school, considering Steps 1, 2, 3, and 4, might most appropriately address itself.

Step 6 - Organization of a careful plan, considering previous steps, for the use of developmental funds which would include:

(a) the development of a "key" interest, including:

-identification of existing courses in the school which normally contain an international orientation or considerable

international content;

-the organization of appropriate courses to fulfil teaching needs in areas of international health that are currently not covered;

-consideration of the possibility of identification with a regional consortium, if not already so identified, in order to have a more broadly based and supported international program area readily available;

(b) the obtaining of a "key" person, i.e., one who has had experience in the appropriate program area and who has a vital personal involvement or expertise in the identified "key" interest.

Step 7 - Identification of federal agencies, international organizations, industries and foundations which are addressing themselves to needs in the appropriate program area, whose interests might be compatible with those of the school, and who might be a source of further funds.

At a time most opportune in the developing strategy, the school should give its international health program formal recognition within its organization. This can be done by developing the specific type of organizational pattern consistent with school goals and need (Recommendation (3) preceding paragraph), and which most enhances the international program.

APPENDIX

TABLE 1

ORGANIZATIONS IN INTERNATIONAL MEDICAL EDUCATION
IN THE UNITED STATES SINCE 1900*

Year	Private Organizations	U.S. Government Agencies
1901	Rockefeller Institute of Medical Research	
1903	General Education Board	
1905	Milbank Fund	
1911	Carnegie Corporation of New York	
1913	Rockefeller Foundation	
1914	China Medical Board	
1916	National Research Council	
1918	Commonwealth Fund	
1919	Institute of International Education	
1923	Social Science Research Council	
1925	Guggenheim Foundation	
1930	W. K. Kellogg Foundation; Josiah Macy Foundation	
1936	Ford Foundation	
1939		Interdepartmental Committee on Scientific and Cultural Cooperation (SCC)
1942		Institute of Inter-American Affairs (IIAA)
1944		Public Health Service (PHS) - Office of International Health Relations
1945		National Institutes of Health (NIH)

TABLE 1--Continued

Year	Private Organizations	U.S. Government Agencies
1946	World Medical Association (WMA)	Department of State Division of International Health and Social Affairs (IHS)
1947	Conference Board of Associated Research Councils	
1948		Economic Cooperation Administration (ECA)
1950	Iran Foundation	Technical Cooperation Administration (TCA)
1951	Committee for Free Asia	Mutual Security Agency (MSA)
1952	American Korean Foundation	
1953	Asia Foundation	Foreign Operations Administration (FOA)
1954	African-American Foundation	
1955		International Cooperation Administration (ICA)
1957	Educational Council for Foreign Medical Graduates (ECFMG)	
1961	Association of American Medical Colleges (AAMC)- Division of International Medical Education (DIME)	Agency for International Development (AID)
1962	American Medical Association (AMA)- Bureau of International Health	Peace Corps
1963	Education and World Affairs (EWA)	

*Adapted from Journal of Medical Education, 41:(9,Pt. 2)315-6, Sept. 1966.

TABLE 2

SCHOOL OF PUBLIC HEALTH IN THE UNITED STATES
PRIOR TO 1950*

School of Public Health	Location	Founded
University of California	Berkeley, California	1911
University of California	Los Angeles, California	1944
Columbia University	New York, New York	1926
Harvard University	Boston, Massachusetts	1922
Johns Hopkins University	Baltimore, Maryland	1918
University of Michigan	Ann Arbor, Michigan	1889
University of Minnesota	Minneapolis, Minnesota	1919
University of North Carolina	Chapel Hill, North Carolina	1936
University of Pittsburgh	Pittsburgh, Pennsylvania	1950
Tulane University	New Orleans, Louisiana	1947
Yale University	New Haven, Connecticut	1915

*Adapted from World Directory of Schools of Public Health 1965, (WHO, Geneva, 1968) pp. 122-124.

TABLE 3

SCHOOLS OF PUBLIC HEALTH CATALOGUES REVIEWED
FOR INTERNATIONAL HEALTH CONTENT

Bulletin, University of California, Announcement of the School of Public Health, Berkeley-San Francisco, Los Angeles, Fall and Spring Semesters, 1950-1951. March 10, 1950.

Bulletin, University of California, Announcement of the School of Public Health, Berkeley-San Francisco, Los Angeles, Fall and Spring Semesters, 1960-1961. March 10, 1960.

University of California, Berkeley, School of Public Health, 1970-1971. Vol. 64, No. 1, February 5, 1970.

University of California, Los Angeles, Announcement of the School of Public Health, 1970-1971. Vol. 10, No. 3, January, 1970.

Harvard School of Public Health, Courses of Instruction for the Year 1950-1951. Official Register of Harvard University, Vol. XLVII, No. 14, August, 1950.

Harvard School of Public Health, Courses of Instruction for the Year 1960-1961. Official Register of Harvard University, Vol. LVII, No. 10, June 30, 1960.

Harvard School of Public Health, Announcement of Courses and General Information, 1970-1971. Official Register of Harvard University, Vol. LXVII, No. 9, July 3, 1970.

The Johns Hopkins University Circular, School of Hygiene and Public Health, 1950-1951. New Series, 1950, No. 5, Whole Number 597.

The Johns Hopkins University Circular, School of Hygiene and Public Health, 1960-1961. New Series 1960, No. 4, Whole No. 676, May 1960.

The Johns Hopkins University Circular, School of Hygiene and Public Health, 1970-1971. New Series 1970, No. 5, Vol. 90, August 1970.

University of Michigan, School of Public Health, Announcement 1950-1951. Vol. 51, No. 50, December 22, 1949.

University of Michigan, School of Public Health, Announcement 1960-1961. Vol. 61, No. 31, September 9, 1959.

University of Michigan, School of Public Health, Official Publication 1970-1971, Vol. 71, No. 104, March 18, 1970.

TABLE 3--Continued

The Bulletin of the University of Minnesota, School of Public Health, 1950-1952, Vol. LIII, No. 25, May 10, 1950.

The Bulletin of the University of Minnesota, School of Public Health, 1960-1962, Vol. LXIII, No. 10, May 15, 1960.

University of Minnesota Bulletin, School of Public Health, 1970-1972. Vol. LXXIII, No. 5, April 29, 1970.

The University of North Carolina Record, School of Public Health, 1951-1952. No. 485, March 20, 1951.

The University of North Carolina Record, School of Public Health, 1961-1962. No. 626, April 10, 1961.

Record of the University of North Carolina, School of Public Health, 1970-1971. No. 750, April 13, 1970.

University of Pittsburgh Bulletin, Graduate School of Public Health, Announcements for 1950-1951.

University of Pittsburgh Bulletin, Graduate School of Public Health, Announcements for 1959-1960.

University of Pittsburgh Bulletin, Graduate School of Public Health, 1970-1971, March 1970.

Tulane University Bulletin, School of Medicine, Division of Graduate Medicine, 1950-1951. Series 51, No. 12, September, 1950.

Tulane University Bulletin, School of Medicine, Division of Graduate Public Health, 1960-1961. Series 61, No. 3, February 1960.

Tulane University Bulletin, School of Public Health and Tropical Medicine, 1970-1971. Series 70, No. 14, December 1, 1969.

TABLE 4

CITATIONS REFLECTING INTERNATIONAL CONTENT IN 1970-1971 CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E[a]	TOTALS I[b]
CALENDAR - FS[c]	-	1	1	-	1	-	-	-	1	4	4
CONTENTS - FS	2	1	2	-	4	-	-	1	1	6	11
- IH[d]	-	-	1	1	-	-	-	1	1	4	4
CORRESPONDENCE - FS	1	-	-	-	1	-	-	-	-	2	2
ADMINISTRATIVE OFFICER - FS	-	1	2	-	-	1	-	-	-	3	4
- IH	-	-	1	-	-	-	-	-	-	1	1
GENERAL DESCRIPTION:											
School Objective	1	1	2	-	-	1	-	-	2	5	7
International Club or Center	-	-	-	1	1	-	-	-	1	3	3
International Division	-	-	1	1	-	-	-	1	-	3	3
International Programs	-	-	-	-	1	-	-	1	1	3	3
Other International Facility	-	-	1	-	-	-	1	-	1	3	3

TABLE 4--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
GENERAL INFORMATION:											
FS Admission Information	1	1	-	-	1	-	-	1	1	5	5
FS Advice on Costs	-	-	1	-	-	-	-	1	-	2	2
FS Fees	1	-	1	-	1	-	-	1	-	4	4
FS Health Insurance	1	-	-	-	2	2	-	-	1	4	6
FS Financial Aids	2	4	-	-	-	1	-	1	-	4	8
FS English Proficiency	1	1	1	-	1	-	-	1	2	6	7
FS Orientation	1	-	1	-	2	-	-	1	1	5	6
FS Housing	-	-	1	-	-	-	-	-	-	1	1
FS Special Advice	1	1	-	-	-	-	-	-	-	2	2
American Overseas Fellowships	-	-	-	1	-	-	-	-	1	2	2
International House	1	-	1	-	1	-	-	-	-	3	3
International Center	-	-	-	-	1	-	-	-	1	2	2

TABLE 4--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
PROGRAMS OF STUDY:											
Environmental Sciences	-	1	-	-	-	-	-	1	-	2	2
Family Planning and Population	1	-	-	1	2	-	-	1	-	4	5
Health Administration	-	-	-	-	-	-	1	-	-	1	1
Health Planning	-	-	-	-	1	-	-	1	-	2	2
Infectious Disease and Tropical Disease	-	1	-	-	-	-	-	-	1	2	2
International Health	-	1	1	1	-	-	-	1	1	5	5
Maternal and Child Health	-	-	-	-	1	-	-	-	-	1	1
Nutrition	1	1	-	-	1	-	-	-	-	3	3
Public Health Education	-	-	-	-	-	-	1	-	-	1	1
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	5	3	-	3	-	2	-	4	13
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	1	1	-	-	-	1	-	3	3
RESIDENT PROGRAM	-	-	1	1	-	-	-	-	1	3	3

TABLE 4--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:											
Behavioral & Social Sciences	-	-	2	1	-	-	-	2	-	3	5
Biostatistics, Demography and Epidemiology	-	-	-	2	-	-	-	-	-	1	2
Environmental Health	-	-	-	-	1	-	2	-	-	2	3
Family Planning and Population	1	1	2	1	-	-	1	2	3	7	11
Health Administration and Public Health Practice	-	1	2	3	2	-	1	-	3	6	12
Health Education	-	-	-	-	-	-	1	-	-	1	1
Interdepartmental Courses	-	-	2	-	-	-	-	-	-	1	2
International Health	-	4	-	13	-	-	-	3	7	4	27
Maternal and Child Health	1	1	2	1	-	-	-	-	-	4	5
Medical Care and Hospitals	-	-	-	5	-	1	-	-	-	2	6
Nutrition	-	2	3	1	-	-	-	-	1	4	7
Public Health Nursing	-	-	-	-	-	-	-	1	-	1	1
Tropical Public Health and Infectious Diseases	-	-	2	-	-	-	-	-	-	1	2

TABLE 4--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
SPECIAL OVERSEAS STUDY TRIPS:											
Health Services Administration	-	-	1	-	-	-	-	-	-	1	1
Maternal and Child Health	-	-	1	-	-	-	-	-	-	1	1
Nutrition	1	-	-	-	1	-	-	-	1	3	3
OVERSEAS STUDY PROJECTS	-	-	12	10	1	-	-	2	1	5	26
CENTERS WITH INTERNATIONAL COMPONENT:											
C. for Prevention of Infectious Diseases	-	-	1	-	-	-	-	-	-	1	1
C. for Population Studies	-	-	1	-	1	-	1	-	-	3	3
C. for Community Health and Medical Care	-	-	1	-	-	-	-	-	-	1	1
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	-	1	-	-	-	-	1	2	2
FACULTY DESIGNATED "INTERNATIONAL"	-	3	3	46	-	-	-	2	12	5	66

[a]E = Entries. [b]I = Items (Terms of Reference). [c]FS = Foreign Student. [d]IH = International Health.

TABLE 5

SUMMARY OF ITEMS BY MAJOR CATEGORY REFLECTING INTERNATIONAL CONTENT IN 1970-1971 CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS
ADMINISTRATIVE - FS	3	3	5	-	6	1	-	1	2	21
- IH	-	-	2	1	-	-	-	1	1	5
GENERAL DESCRIPTION	1	1	4	2	2	1	1	2	5	19
GENERAL INFORMATION	9	7	6	1	9	3	-	6	7	48
PROGRAMS OF STUDY	2	4	1	2	5	-	2	4	2	22
DEPARTMENTAL PROGRAM - IH	-	-	5	3	-	3	-	2	-	13
INTERDEPARTMENTAL PROGRAM - IH	-	-	1	1	-	-	-	1	-	3
RESIDENT PROGRAM	-	-	1	1	-	-	-	-	1	3
COURSES WITH INTERNATIONAL CONTENT	2	9	15	27	3	1	5	8	14	84
SPECIAL OVERSEAS STUDY TRIPS	1	-	2	-	1	-	-	-	1	5
OVERSEAS STUDY PROJECTS	-	-	12	10	1	-	-	2	1	26
CENTERS WITH INTERNATIONAL ASPECT	-	-	3	-	1	-	1	-	-	5
INTERNATIONAL CENTER FOR TRAINING	-	-	-	1	-	-	-	-	1	2
FACULTY, "INTERNATIONAL"	-	3	3	46	-	-	-	2	12	66

TABLE 6

COURSES OF INSTRUCTION WITH INTERNATIONAL REFERENCE
IN 1970-1971 CATALOGUES FROM SELECTED
SCHOOLS OF PUBLIC HEALTH

UNIVERSITY OF CALIFORNIA - BERKELEY

227. International Maternal and Child Health
....Maternal and child health programs outside of the United States.

294. Family Planning
....Analysis of selected world programs and research in family planning.

UNIVERSITY OF CALIFORNIA - LOS ANGELES

Environmental and Nutritional Sciences

142. The World's Population and Food
The world's food sources; major food groups, human food requirements and consumption; food in developing economics; the international movement of foods; interrelations of foods, population and economic progress.

286. Nutritional Problems in Developing Areas
Manifestations and dietary treatment of nutritional deficiencies.

Health Administration

206. Medical Care Systems in International Perspective
Analysis of systems of medical care organization in countries of different stages of economic development and diverse political settings.

International Health

290E. Special Group Studies
"International Health"

456A. International Health Agencies and Programs
Historical development and functions of international organizations concerned with health, including United Nations units (WHO, UNICEF, etc.) as well as bilateral movements (U.S. -Aid, Colombo Plan), medico-religious missions, private foundations, and other channels for dissemination of ideas and practices.

TABLE 6--Continued

456B. Comparative Analysis of Health Services and Disease Patterns
Examination of selected countries, both developing and industrialized; comparative analyses of the nature of disease problems and the diverse patterns of health service organization in various cultural and political settings.

456C. Issues in International Health Administration
Study of critical issues in health service administration (planning, social security, manpower, etc.) which have emerged in all countries (industrialized or developing), and which have led to diverse organizational solutions.

Population and Family Health

263. Seminar in Maternal and Child Health
....and international trends in maternal and child health programs.

421. Population and Family Planning Program
The salient components of population and family planning programs in various locations and of various types, with special attention to the National Planning Program of India and the countywide family planning program in Los Angeles.

HARVARD UNIVERSITY

Interdepartmental Courses

1. History and Philosophy of Public Health
....An attempt is made to evaluate the extent to which the lessons of history have been used in the formulation of health policies in a changing world, both in industrial and in developing nations.

4. Human Rights in Health
This course includes a comprehensive examination of basic human, personal rights as they bear upon health programs in the United States, other countries, and on an international basis.

Department of Behavioral Sciences

6. Cross-Cultural Psychiatry
This course is designed for public health workers who desire to increase their knowledge regarding mental health and mental illness in contrasting cultural groups. The ground

TABLE 6--Continued

covered includes cultural relativity, cross-cultural epidemiology of psychiatric disorders, and the effects of rapid cultural change, poverty, and sociocultural disintegration. Indigenous practices for the treatment of the mentally ill in non-Western societies are described and their implications discussed. Various contemporary experiments concerned with meeting the psychiatric needs of developing countries are examined.

8. Health and Illness in Cross-Cultural Perspective
....Case materials and research examples draw upon studies of non-Western groups and ethnic sub-groups within Euro-American society.

Department of Health Services Administration

1. The Nature and Function of Health Care Delivery Systems
This course consists of an analysis of health care systems and their component institutional forms as they have evolved as expressions of the felt needs of societies. There will be an examination and comparison of present day health service arrangements in three nations (the Soviet Union, the United Kingdom, and the United States), as they reflect national goals and priorities and other constraints..... The underlying theme is health care system, their evolution, their structure, how they are currently expressed in selected nations, and the universality of the forces that serve to shape and mold them.

8. The Economics of Health Planning
....Examples of planning in a variety of national contexts including the Soviet Union, France, Great Britain, and the United States will be discussed.....

Department of Maternal and Child Health

4. Welfare Programs and Their Relation to Public Health
Although it is primarily focused on public welfare in the United States, reference is made to contrasting patterns in other countries.

17. Tutorial Programs
....examples are:..., technical assistance to developing countries in maternal and child health;....

TABLE 6--Continued

Microbiology and Tropical Public Health

6. Tuberculosis
The purpose of this course is to provide an understanding of the ecology and the public health significance of tuberculosis which continues to be a worldwide problem of major importance .....These discussions are based on selected reports in the literature and experiences of students and Faculty members in developed and developing nations with tuberculosis programs and control.

9. Public Health Aspects of Immunobiology
....The role and objectives of the Division of Immunology of the World Health Organization and the WHO International Reference Centers are discussed as well as ways to effectively mesh, on a regional and international basis, the resources of governments, universities, and industries for an integrated approach to immunobiologic research, development, and training programs....

Department of Nutrition

1. Public Health Nutrition
This course deals with nutrition and the application of nutrition programs to problems of human health in overnourished and undernourished populations of highly industrialized and developing areas of the world.

7. International Nutrition Policy and Programs
This course is designed to cover food and nutrition policy in developing countries.....

20. Research
.....; cooperative international researches in nutrition.

Department of Population Sciences

6. Problems of Population
This course reviews the history of the world's population and the social consequences of different population sizes and growth rates. Special attention is paid to a cross-cultural analysis of the social determinants of fertility, mortality and migration.

Natural Sciences

118. Human Populations and Natural Resources
Lectures, discussion, and readings on "The Population Problem,"

TABLE 6--Continued

viewed in the context of balancing human populations and their resources;.....Special emphasis will be laid on such questions as how the poor countries (two-thirds of mankind) can obtain enough food to feed their peoples, whether and how these countries will be able to limit the increases of their populations; and the effects on the quality of life of population and economic change in the United States and other rich countries.

JOHNS HOPKINS UNIVERSITY

Department of Behavioral Sciences

16A04 Behavioral Sciences 4- International Health 4. Planned Change

Department of Biochemistry

12A08 Biochemistry 8. Nutritional Problems in Public Health ....Particular aspects of the subject which are of current importance in developing countries are then considered.

Department of Biostatistics

14A03 Biostatistics 3- International Health 3- Medical Care and Hospitals 28. Quantitative Decision Procedures.

Department of Epidemiology

34A07 Epidemiology 7- International Health 6. Epidemiologic Field Studies of Infectious Diseases.

Department of International Health

22A01 International Health 1. Introduction to International Health.

22A02 International Health 2. Seminar for Program Planning and Project Development in International Health.

22A03 International Health 3- Biostatistics 3- Medical Care and Hospitals 28. Quantitative Decision Procedures.

22A04 International Health 4- Behavioral Sciences 4. Planned Change.

22A05 International Health 5- Public Health Administration 5- Medical Care and Hospitals 8. Comprehensive Health Planning.

TABLE 6--Continued

22A06 International Health 6- Epidemiology 7. Epidemiologic Field Studies of Infectious Diseases.

22A07 International Health 7- Population Dynamics 7. Family Planning Administration.

22A08 International Health 8. Area and Language Study.

22A09 International Health 9- Medical Care and Hospitals 29. Teaching of Community Medicine in Medical Schools.

22A10 International Health 10- Public Health Administration 3. Economics of Health.

22A20 International Health 20. Special Studies and Research.

22A24 International Health 24- Medical Care and Hospitals 24- Public Health Administration 24. Methods in Health Services Planning.

International Health Seminar.
Topics of current interest in international health will be presented by faculty, visiting experts, and students. For students majoring in International Health.

Department of Maternal and Child Health

28A03 Maternal and Child Health 3. Maternal and Child Health Services in Developing Societies. Deliberation will be given to the tactics and strategy of organizing and delivering maternal and child health services in less than optimum settings, both domestically and internationally.

Department of Medical Care and Hospitals

24A05 Medical Care and Hospitals 5. International Comparative Study of Health Services Systems.

24A08 Medical Care and Hospitals 8- International Health 5- Public Health Administration 5. Comprehensive Health Planning.

24A24 Medical Care and Hospitals 24- International Health 24- Public Health Administration 24. Methods in Health Services Planning.

24A28 Medical Care and Hospitals 28- Biostatistics 3- International Health 3. Quantitative Decision Procedures.

TABLE 6--Continued

24A29 Medical Care and Hospitals 29- International Health 9. Teaching of Community Medicine in Medical Schools.

Department of Population Dynamics

32A07 Population Dynamics 7- International Health 7. Family Planning Administration.

Department of Public Health Administration

30A03 Public Health Administration 3- International Health 10. Economics of Health.

30A05 Public Health Administration 5- International Health 5- Medical Care and Hospitals 8. Comprehensive Health Planning.

30A24 Public Health Administration 24- Medical Care and Hospitals 24- International Health 24. Methods in Health Services Planning.

UNIVERSITY OF MICHIGAN

Department of Community Health Services

C.H.S.514 International Health
Historical development and evolution of international health activities. Primary attention to the work and problems of international health agencies.

Department of Environmental Health

E.H.609 Environmental Health in Developing Areas.
Designed primarily to give individual attention to small groups of foreign students with specific problems in the technical and administrative practices of environmental health.

Department of Health Development

H.D.500 Community Health Problems
....Health organizations for solving health problems at local, state, federal, and international levels.

TABLE 6--Continued

UNIVERSITY OF MINNESOTA

Hospital and Health Care Administration

8-752 Seminar: Medical Care Patterns Abroad

UNIVERSITY OF NORTH CAROLINA

Department of Health Administration

HADM 110 Elements of Health Administration
A survey of the theory and practice of community health services administration in contemporary American society, with appropriate comparative examination of health systems in other societies.

HADM 260 Family Planning Program Development
.....possible means of solution under different conditions, using information and experience from family planning programs in various countries.

Department of Environmental Sciences

ENVR 182 Water Resources Planning in Developing Countries
Planning objectives and design criteria for developing countries are considered.

ENVR 313 Environmental Health Problems in Developing Countries
Discussion and analysis of selected problems relating to the achievement of social, economic and technologic benefits in developing countries through improvement of the environment.

Department of Health Education

HEED 211 Advanced Community Development for Health Education
Analysis and application of health and health education aspects of agency and organizations' community development programs in the United States and abroad.

UNIVERSITY OF PITTSBURGH

Department of International Health

IH211 Administration and Programming in International Health

TABLE 6--Continued

IH221 Special Problems in International Health

IH225 Research Seminar: Problems in International Health

Public Health Nursing

PH NUR 213 Planning for Community Nursing Services
The purposes of this course are .....and (3) to explore the problems and develop possible solutions to the provision of quantity and quality of community nursing services on a local, regional, national and international basis.

Public Health Social Sciences

PHSS 214 Social Environment
Examples of special topics are ....., cross-national examination of authority and decision-making in the organization of community health services,.....

PHSS 240 Cross-National Aspects of Culture and Health Behavior
Attempts to change prevailing health attitudes and beliefs are analyzed in the context of cross-national systems of medicine.

Population Division

POP 218 Demographic Processes
....at least the following areas will be included: ..; variations on the theory of the demographic transition with attention to their historical validity and present relevance to the developing countries; .....The focus in each of these will be on both theory and international empirical research.

POP 222 Planning, Administration, and Evaluation of Population Programs
This course covers the planning, content, organization, administration and evaluation of population and family planning programs both in the United States and other countries. ....

TULANE UNIVERSITY

Family Health and Population Dynamics

601 Introduction to Population Dynamics.
Population problems in various areas of the world are reviewed. Population dynamics is treated as a vital part of public

TABLE 6--Continued

health programs. Local, national, and international family planning programs and population policies are presented and critically evaluated.

602 Designing and Administering a Family Health and Family Planning Program.
Local, national and international family health and family planning programs and population policies are presented and critically evaluated.

607 Population Problems.
....Population problems in various areas of the world will be reviewed.

Health Services Administration

653 Comparative Health Systems.
Study of the common problems and varied responses employed by countries in providing health services. Implications of alternative adaptive responses are discussed with particular reference to political idealogy, interest group and external pressures. Specific reference is made to the delivery of health services in Sweden, Yugoslavia, and Colombia.

753 Comparative Health Systems.
....(3) Study of the development of structure and function of the principal forms of contemporary Western health systems.

Public Health Administration

601 Public Health Administration: Organization and Programs.
....Proceeding from the historical background, the organization of preventive medicine and public health services, official and voluntary, at international, national, state, and local levels is described....

International Health

602 Introduction to International Health.
In this course the origin and development of international health work are traced and descriptions given of the different agencies, official and unofficial, now engaged in this work. Both their interrelationships and their roles in international relations are covered along with their fields of operation and methods of administration.

603 Cultural Aspects of Health Programs.
The course provides an introduction to cultural anthropology..

TABLE 6--Continued

Cultures and concepts of health are described. Barriers to and motivations for change are also discussed. Folk medicine and anthropological aspects of community development are considered. Case studies are used.

640 Health and Economic Development.
The course includes a survey of the economic principles essential to understanding the process of economic development in underdeveloped countries and an examination of the place of health in the development process.

606 Health Services for Developing Countries.
This course is concerned with the administration of health services for developing countries. It includes a comparative study of national and local government, public administration in developing territories, public health surveys, the preparation of plans, the designing of health agencies and the use of model and pilot projects. Problems associated with cross-cultural work are explored. The initiation of certain basic services is described, as well as the administration of control and eradication programs.

608 Educational Programs.
This course includes the principles of pedagogy; curricula preparation; ways of strengthening educational institutions; the use of fellowships, seminars, workshops, conferences, etc.; and the training and supervision of auxiliary health workers.

751 Special Studies in International Health Administration.

752 Special Studies in International Health Administration.

Nutrition

650 INCAP Summer Course in Nutrition.
By arrangement with the Institute of Nutrition of Central America and Panama (INCAP), credit is given to students successfully completing this course. This ten-week course is given annually by INCAP in Guatemala and is usually limited to physicians who have been awarded the M.P.H. degree or its equivalent from a recognized school of public health. Instruction is in either English or Spanish, or both simultaneously.

TABLE 7

OVERSEAS STUDY AND RESEARCH PROJECTS IDENTIFIED
IN 1970-1971 CATALOGUES FROM SELECTED
SCHOOLS OF PUBLIC HEALTH

HARVARD UNIVERSITY

Trachoma research -- Saudi Arabia
Effects of Lysine enrichment of wheat and rice -- Tunisia and Thailand
Comparative heart disease studies -- Ireland and U.S.A.
Nutrition research -- Colombia and Israel
Population studies -- Chile, Greece, United Arab Republic, and India
Typhus -- Yugoslavia
Urinary calculi -- Thailand
Cardiovascular disease -- Japan
Hereditary and environmental factors in heart disease -- Israel
Collaborative studies in cervical cancer, breast cancer, and leukemia -- numerous countries
Respiratory disease -- U.S.A., United Kingdom, and Japan
Rickettsial disease -- Tunisia, Mexico, and Cape Cod, Massachusetts

JOHNS HOPKINS UNIVERSITY

Health planning studies -- Chile
Population dynamics -- India, Chile and Nigeria
National health manpower -- Taiwan, Turkey, Peru, and Nigeria
Health and economic development -- Taiwan, Turkey, and Peru
Functional analysis of rural health centers and the role of auxiliaries in health and family planning -- India, Turkey, and Taiwan
Role of nurses in delivery of child health care -- Nigeria
Health conditions in developing countries -- Ethiopia, Peru, Chad, and Afganistan
Comparative patterns of medical education -- India, Turkey, and Iran
Department of Community Health collaboration -- Lagos Medical College, Nigeria
Epidemiology of leprosy -- West Bengal, India

*International Center for Medical and Research Training (ICMRT) -- Calcutta, India

TABLE 7--Continued

UNIVERSITY OF MICHIGAN

Long-term research, training, and service relationships -- Taiwan, Nepal, Malaysia

UNIVERSITY OF PITTSBURGH

Population Division -- migration patterns in Latin America
Epidemiology and Microbiology - Hemorrhagic syndromes -- Philippines and Thailand
Collaboration -- Department of Social and Preventive Medicine, University of West Indies, Kingston, Jamaica

TULANE UNIVERSITY

Collaboration -- Institute of Nutrition of Central America and Panama (INCAP), Guatemala

*International Center for Medical and Research Training (ICMRT) -- Cali, Colombia

TABLE 8

CITATIONS REFLECTING INTERNATIONAL CONTENT IN 1950-1951 CATALOGUES
FROM SELECTED SCHOOLS OF PUBLIC HEALTH

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E[a]	TOTALS I[b]
CALENDAR - FS[c]	-	-	-	-	-	-	-	-	-	-	-
CONTENTS - FS	-	-	-	-	-	-	-	-	-	-	-
- IH[d]	-	-	-	-	-	-	-	-	-	-	-
CORRESPONDENCE - FS	-	-	-	-	-	-	-	-	-	-	-
ADMINISTRATIVE OFFICER - FS	-	-	-	-	-	-	-	-	-	-	-
- IH	-	-	-	-	-	-	-	-	-	-	-
GENERAL DESCRIPTION:											
School Objective	-	-	1	-	-	-	-	1	-	2	2
International Club or Center	-	-	-	-	-	-	-	-	1	1	1
International Division	-	-	-	-	-	-	-	-	-	-	-
International Programs	-	-	-	-	-	-	-	-	-	-	-
Other International Facility	-	-	-	-	-	-	-	-	2	1	2

TABLE 8--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
GENERAL INFORMATION:											
FS Admission Information	-	-	1	-	-	-	-	-	-	1	1
FS Advice on Costs	-	-	-	-	-	-	-	-	-	-	-
FS Fees	-	-	-	-	-	-	-	-	-	-	-
FS Health Insurance	-	-	-	-	-	-	-	-	-	-	-
FS Financial Aids	-	-	-	-	-	-	-	-	-	-	-
FS English Proficiency	-	-	-	-	-	-	-	-	1	1	-
FS Orientation	-	-	-	-	-	-	-	-	1	1	1
FS Housing	-	-	-	-	-	-	-	-	-	-	-
FS Special Advice	-	-	-	-	-	-	-	-	-	-	-
American Overseas Fellowships	-	-	-	-	-	-	-	-	-	-	-
International House	-	-	-	-	-	-	-	-	-	-	-
International Center	-	-	-	-	-	-	-	-	-	-	-

TABLE 8--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
PROGRAMS OF STUDY:											
Environmental Sciences	-	-	-	-	-	-	-	-	-	-	-
Family Planning and Population	-	-	-	-	-	-	-	-	-	-	-
Health Administration	-	-	-	-	-	-	-	-	-	-	-
Health Planning	-	-	-	-	-	-	-	-	-	-	-
Infectious Disease and Tropical Disease	-	-	1	-	-	-	-	-	1	2	2
International Health	-	-	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-	-	-
Public Health Education	-	-	-	-	-	-	-	-	-	-	-
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	-	-	1	-	1	1
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	-	-	-	-	-	-
RESIDENT PROGRAM	-	-	-	-	-	-	-	-	-	-	-

TABLE 8--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:											
Behavioral & Social Sciences	-	-	-	-	-	-	-	-	-	-	-
Biostatistics, Demography and Epidemiology	-	-	-	-	-	-	-	-	-	-	-
Environmental Health	-	-	-	1	-	-	-	-	-	1	1
Family Planning and Population	-	-	-	-	-	-	-	-	-	-	-
Health Administration and Public Health Practice	-	-	1	-	1	-	1	1	-	4	4
Health Education	-	-	-	-	-	-	-	-	-	-	-
Interdepartmental Courses	-	-	-	-	-	-	-	-	-	-	-
International Health	-	-	-	1	-	-	-	-	-	1	1
Maternal and Child Health	-	-	-	-	-	-	-	-	-	-	-
Medical Care and Hospitals	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-	-	-
Public Health Nursing	-	-	-	-	-	-	-	-	-	-	-
Tropical Public Health and Infectious Diseases	-	-	3	1	-	-	-	-	3	3	7

TABLE 8--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
SPECIAL OVERSEAS STUDY TRIPS:											
Health Services Administration	-	-	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-	-	-
OVERSEAS STUDY PROJECTS	-	-	-	-	-	-	-	-	-	-	-
CENTERS WITH INTERNATIONAL COMPONENT:											
C. for Prevention of Infectious Diseases	-	-	-	-	-	-	-	-	-	-	-
C. for Population Studies	-	-	-	-	-	-	-	-	-	-	-
C. for Community Health and Medical Care	-	-	-	-	-	-	-	-	-	-	-
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	-	-	-	-	-	-	-	-	-
FACULTY DESIGNATED "INTERNATIONAL"	-	-	-	-	-	-	-	-	-	-	-

[a]E = Entries. [b]I = Items (Terms of Reference). [c]FS = Foreign Student. [d]IH = International Health.

TABLE 9

CITATIONS REFLECTING INTERNATIONAL CONTENT IN 1960-1961 CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E[a]	TOTALS I[b]
CALENDAR - FS[c]	4	-	1	-	1	-	-	-	-	3	6
CONTENTS - FS	-	-	1	-	2	-	-	-	-	2	3
- IH[d]	-	-	-	-	-	-	-	-	-	-	-
CORRESPONDENCE - FS	-	-	-	-	-	-	-	-	-	-	-
ADMINISTRATIVE OFFICER - FS	1	1	1	-	-	-	-	-	-	3	3
- IH	1	-	-	-	-	-	-	-	-	1	1
GENERAL DESCRIPTION:											
School Objective	-	-	1	-	-	-	-	1	1	3	3
International Club or Center	-	-	-	-	-	-	-	-	1	1	1
International Division	-	-	-	-	-	-	-	-	-	-	-
International Programs	-	-	-	-	-	-	-	-	-	-	-
Other International Facility	-	-	1	-	-	-	1	-	1	3	3

TABLE 9--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
GENERAL INFORMATION:											
FS Admission Information	1	1	-	-	1	-	-	-	1	4	4
FS Advice on Costs	-	-	1	-	-	-	-	-	-	1	1
FS Fees	1	-	1	-	1	-	1	-	-	4	4
FS Health Insurance	-	-	-	-	-	-	-	-	-	-	-
FS Financial Aids	-	-	-	-	-	-	-	-	-	-	-
FS English Proficiency	1	1	1	-	1	1	-	-	1	6	6
FS Orientation	1	-	1	-	1	1	-	-	-	4	4
FS Housing	-	-	-	-	-	-	1	-	-	1	1
FS Special Advice	1	1	1	-	-	-	-	-	-	3	3
American Overseas Fellowships	-	-	-	-	-	-	-	-	-	-	-
International House	1	-	1	-	-	-	-	-	-	2	2
International Center	-	-	-	-	-	-	-	-	-	-	-

TABLE 9--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
PROGRAMS OF STUDY:											
Environmental Sciences	-	-	-	-	-	-	-	-	-	-	-
Family Planning and Population	-	-	-	-	-	-	-	-	-	-	-
Health Administration	-	-	-	-	-	-	-	-	-	-	-
Health Planning	-	-	-	-	-	-	-	-	-	-	-
Infectious Disease and Tropical Disease	-	-	-	-	-	-	-	-	-	-	-
International Health	-	-	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-	-	-
Public Health Education	-	-	-	-	-	-	1	-	-	1	1
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	1	1	-	-	-	-	-	2	2
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	-	-	-	-	-	-
RESIDENT PROGRAM	-	-	-	-	-	-	-	-	-	-	-

TABLE 9--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:											
Behavioral & Social Sciences	-	-	-	-	-	-	-	-	-	-	-
Biostatistics, Demography and Epidemiology	-	-	-	1	-	-	-	-	-	1	1
Environmental Health	-	-	-	-	1	-	-	-	-	1	1
Family Planning and Population	-	-	-	-	-	-	-	-	-	-	-
Health Administration and Public Health Practice	-	-	3	-	2	-	-	2	3	4	10
Health Education	-	-	-	-	-	-	-	-	-	-	-
Interdepartmental Courses	-	-	-	-	-	-	-	-	-	-	-
International Health	-	2	-	1	-	-	-	-	-	2	3
Maternal and Child Health	-	-	-	-	-	-	-	1	-	1	1
Medical Care and Hospitals	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	1	-	-	-	1	-	2	2
Public Health Nursing	-	-	-	-	-	-	-	-	-	-	-
Tropical Public Health and Infectious Diseases	-	-	3	-	-	-	-	1	4	3	8

TABLE 9--Continued

	UC-B	UCLA	HARV	JHOP	MICH	MINN	NCAR	PITT	TULA	TOTALS E	TOTALS I
SPECIAL OVERSEAS STUDY TRIPS:											
Health Services Administration	-	-	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-	-	-
OVERSEAS STUDY PROJECTS	-	-	-	-	-	-	-	-	-	-	-
CENTERS WITH INTERNATIONAL COMPONENT:											
C. for Prevention of Infectious Diseases	-	-	-	-	-	-	-	-	-	-	-
C. for Population Studies	-	-	-	-	-	-	-	-	-	-	-
C. for Community Health and Medical Care	-	-	-	-	-	-	-	-	-	-	-
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	-	-	-	-	-	-	-	-	-
FACULTY DESIGNATED "INTERNATIONAL"	-	-	-	-	-	-	-	-	-	-	-

[a]E = Entries. [b]I = Items (Terms of Reference). [c]FS = Foreign Student. [d]IH = International Health.

TABLE 10

COMPARISON BY YEAR OF ENTRIES[a] AND ITEMS[b] REFLECTING INTERNATIONAL CONTENT FROM CATALOGUES FOR THE YEARS 1950-1951, 1960-1961 AND 1970-1971 FROM SELECTED SCHOOLS OF PUBLIC HEALTH

	Possible Entries[c]	1950		1960		1970	
		Entry	Item	Entry	Item	Entry	Item
ADMINISTRATIVE - FS[d]	36	-	-	8	12	15	21
- IH[e]	18	-	-	1	1	5	5
GENERAL DESCRIPTION	45	4	5	7	7	17	19
GENERAL INFORMATION	108	3	3	25	25	40	48
PROGRAMS OF STUDY	81	2	2	1	1	21	22
DEPARTMENTAL PROGRAM - IH	9	1	1	2	2	4	13
INTERDEPARTMENTAL PROGRAM - IH	9	-	-	-	-	3	3
RESIDENT PROGRAM	9	-	-	-	-	3	3
COURSES WITH INTERNATIONAL CONTENT	117	9	13	14	26	37	84

TABLE 10--Continued

	Possible Entries[c]	1950		1960		1970	
		Entry	Item	Entry	Item	Entry	Item
SPECIAL OVERSEAS STUDY TRIPS	27	-	-	-	-	5	5
OVERSEAS STUDY PROJECTS	9	-	-	-	-	5	26
CENTERS WITH INTERNATIONAL ASPECT	27	-	-	-	-	5	5
INTERNATIONAL CENTER FOR RESEARCH AND TRAINING	9	-	-	-	-	2	2
FACULTY, "INTERNATIONAL"	9	-	-	-	-	5	66
TOTALS	513	19	24	58	74	167	322

[a]An "entry" is a number which represents the recording of one or more items. The total of entries represents the number of times that recordings were made, but does not represent the total of the numbers recorded.

[b]"Item" is an abbreviated way of saying "term of reference". (See Chapter III, page 20.)

[c]"Possible entries" represents what would be the total number of entries if all possible entries had been made in the table developed for the year 1970-1971. (See Table 4, page 120.)

[d]FS = Foreign Student.

[e]IH = International Health.

TABLE 11

CITATIONS REFLECTING INTERNATIONAL CONTENT IN CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH, 1950-1970, BY SCHOOL

	CALIF.-BERK.			CALIF.-L.A.			HARVARD		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
CALENDAR - FS[a]	-	4	-	-	-	1	-	1	1
CONTENTS - FS	-	-	2	-	-	1	-	1	2
- IH[b]	-	-	-	-	-	-	-	-	1
CORRESPONDENCE - FS	-	-	1	-	-	-	-	-	-
ADMINISTRATIVE OFFICER - FS	-	1	-	-	1	1	-	1	2
- IH	-	1	-	-	-	-	-	-	1
GENERAL DESCRIPTION:									
School Objective	-	-	1	-	-	1	1	1	2
International Club or Center	-	-	-	-	-	-	-	-	-
International Division	-	-	-	-	-	-	-	-	1
International Programs	-	-	-	-	-	-	-	-	-
Other International Facility	-	-	-	-	-	-	-	1	1

TABLE 11--Continued

	CALIF.-BERK.			CALIF.-L.A.			HARVARD		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
GENERAL INFORMATION:									
FS Admission Information	-	1	1	-	1	1	1	-	-
FS Advice on Costs	-	-	-	-	-	-	-	1	1
FS Fees	-	1	1	-	-	-	-	-	1
FS Health Insurance	-	-	1	-	-	-	-	-	-
FS Financial Aids	-	-	2	-	-	4	-	-	-
FS English Proficiency	-	1	1	-	1	1	-	1	1
FS Orientation	-	1	1	-	-	-	-	1	1
FS Housing	-	-	-	-	-	-	-	-	1
FS Special Advice	-	1	1	-	1	1	-	1	-
American Overseas Fellowships	-	-	-	-	-	-	-	-	-
International House	-	1	1	-	-	-	-	1	1
International Center	-	-	-	-	-	-	-	-	-

TABLE 11--Continued

	CALIF.-BERK.			CALIF.-L.A.			HARVARD		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
PROGRAMS OF STUDY:									
Environmental Sciences	-	-	-	-	-	1	-	-	-
Family Planning and Population	-	-	1	-	-	-	-	-	-
Health Administration	-	-	-	-	-	-	-	-	-
Health Planning	-	-	-	-	-	-	-	-	-
Infectious Disease and Tropical Disease	-	-	-	-	-	1	1	-	-
International Health	-	-	-	-	-	1	-	-	1
Maternal and Child Health	-	-	-	-	-	-	-	-	-
Nutrition	-	-	1	-	-	1	-	-	-
Public Health Education	-	-	-	-	-	-	-	-	-
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	-	-	1	5
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	-	-	-	1
RESIDENT PROGRAM	-	-	-	-	-	-	-	-	1

TABLE 11--Continued

	CALIF.-BERK.			CALIF.-L.A.			HARVARD		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:									
Behavioral & Social Sciences	-	-	-	-	-	-	-	-	2
Biostatistics, Demography and Epidemiology	-	-	-	-	-	-	-	-	-
Environmental Health	-	-	-	-	-	-	-	-	-
Family Planning and Population	-	-	1	-	-	1	-	-	2
Health Administration and Public Health Practice	-	-	-	-	-	1	1	3	2
Health Education	-	-	-	-	-	-	-	-	-
Interdepartmental Courses	-	-	-	-	-	-	-	-	2
International Health	-	-	-	-	2	4	-	-	-
Maternal and Child Health	-	-	1	-	-	1	-	-	2
Medical Care and Hospitals	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	2	-	-	3
Public Health Nursing	-	-	-	-	-	-	-	-	-
Tropical Public Health and Infectious Diseases	-	-	-	-	-	-	3	3	2

TABLE 11--Continued

	CALIF.-BERK.			CALIF.-L.A.			HARVARD		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
SPECIAL OVERSEAS STUDY TRIPS: (short)									
Health Services Administration	-	-	-	-	-	-	-	-	1
Maternal and Child Health	-	-	-	-	-	-	-	-	1
Nutrition	-	-	1	-	-	-	-	-	1
OVERSEAS STUDY PROJECTS (longterm or ongoing)	-	-	-	-	-	-	-	-	12
CENTERS WITH INTERNATIONAL COMPONENT:									
C. for Prevention of Infectious Diseases	-	-	-	-	-	-	-	-	1
C. for Population Studies	-	-	-	-	-	-	-	-	1
C. for Community Health and Medical Care	-	-	-	-	-	-	-	-	1
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	-	-	-	-	-	-	-
FACULTY DESIGNATED "INTERNATIONAL"	-	-	-	-	-	3	-	-	3
TOTAL CITATIONS	0	12	18	0	6	27	7	17	60

[a]FS = Foreign Student.

[b]IH = International Health.

TABLE 12

CITATIONS REFLECTING INTERNATIONAL CONTENT IN CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH, 1950-1970, BY SCHOOL

	JOHNS HOPKINS			MICHIGAN			MINNESOTA		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
CALENDAR - FS[a]	-	-	-	-	1	1	-	-	-
CONTENTS - FS	-	-	-	-	2	3	-	-	-
- IH[b]	-	-	1	-	-	1	-	-	-
CORRESPONDENCE - FS	-	-	-	-	-	1	-	-	-
ADMINISTRATIVE OFFICER - FS	-	-	-	-	-	-	-	-	1
- IH	-	-	-	-	-	-	-	-	-
GENERAL DESCRIPTION:									
School Objective	-	-	-	-	-	-	-	-	1
International Club or Center	-	-	1	-	-	1	-	-	-
International Division	-	-	1	-	-	-	-	-	-
International Programs	-	-	-	-	-	1	-	-	-
Other International Facility	-	-	-	-	-	-	-	-	-

TABLE 12--Continued

	JOHNS HOPKINS			MICHIGAN			MINNESOTA		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
GENERAL INFORMATION:									
FS Admission Information	-	-	-	-	1	1	-	-	-
FS Advice on Costs	-	-	-	-	-	-	-	-	-
FS Fees	-	-	-	-	1	1	-	-	-
FS Health Insurance	-	-	-	-	-	2	-	-	2
FS Financial Aids	-	-	-	-	-	-	-	-	1
FS English Proficiency	-	-	-	-	1	1	-	1	-
FS Orientation	-	-	-	-	1	2	-	1	-
FS Housing	-	-	-	-	-	-	-	-	-
FS Special Advice	-	-	-	-	-	-	-	-	-
American Overseas Fellowships	-	-	1	-	-	-	-	-	-
International House	-	-	-	-	-	1	-	-	-
International Center	-	-	-	-	-	1	-	-	-

TABLE 12--Continued

	JOHNS HOPKINS			MICHIGAN			MINNESOTA		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
PROGRAMS OF STUDY:									
Environmental Sciences	-	-	-	-	-	-	-	-	-
Family Planning and Population	-	-	1	-	-	2	-	-	-
Health Administration	-	-	-	-	-	-	-	-	-
Health Planning	-	-	-	-	-	1	-	-	-
Infectious Disease and Tropical Disease	-	-	-	-	-	-	-	-	-
International Health	-	-	1	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	1	-	-	-
Nutrition	-	-	-	-	-	1	-	-	-
Public Health Education	-	-	-	-	-	-	-	-	-
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	1	3	-	-	-	-	-	3
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	1	-	-	-	-	-	-
RESIDENT PROGRAM	-	-	1	-	-	-	-	-	-

TABLE 12--Continued

	JOHNS HOPKINS			MICHIGAN			MINNESOTA		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:									
Behavioral & Social Sciences	-	-	1	-	-	-	-	-	-
Biostatistics, Demography and Epidemiology	-	1	2	-	-	-	-	-	-
Environmental Health	1	-	-	-	1	1	-	-	-
Family Planning and Population	-	-	1	-	-	-	-	-	-
Health Administration and Public Health Practice	-	-	3	1	1	1	-	-	-
Health Education	-	-	-	-	-	-	-	-	-
Interdepartmental Courses	-	-	2	-	-	-	-	-	-
International Health	1	1	13	-	1	1	-	-	-
Maternal and Child Health	-	-	1	-	-	-	-	-	-
Medical Care and Hospitals	-	-	5	-	-	-	-	-	1
Nutrition	-	1	1	-	-	-	-	-	-
Public Health Nursing	-	-	-	-	-	-	-	-	-
Tropical Public Health and Infectious Diseases	1	-	-	-	-	-	-	-	-

TABLE 12--Continued

	JOHNS HOPKINS			MICHIGAN			MINNESOTA		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
SPECIAL OVERSEAS STUDY TRIPS: (short)									
Health Services Administration	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	1	-	-	-
OVERSEAS STUDY PROJECTS (longterm or ongoing)	-	-	10	-	-	1	-	-	-
CENTERS WITH INTERNATIONAL COMPONENT:									
C. for Prevention of Infectious Diseases	-	-	-	-	-	-	-	-	-
C. for Population Studies	-	-	-	-	-	1	-	-	-
C. for Community Health and Medical Care	-	-	-	-	-	-	-	-	-
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	1	-	-	-	-	-	-
FACULTY DESIGNATED "INTERNATIONAL"	-	-	46	-	-	-	-	-	-
TOTAL CITATIONS	3	4	97	1	10	28	0	2	9

[a]FS = Foreign Student

[b]IH = International Health

TABLE 13

CITATIONS REFLECTING INTERNATIONAL CONTENT IN CATALOGUES FROM SELECTED SCHOOLS OF PUBLIC HEALTH, 1950-1970, BY SCHOOL

	NO. CAROLINA			PITTSBURGH			TULANE		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
CALENDAR - FS[a]	-	-	-	-	-	-	-	-	1
CONTENTS - FS	-	-	-	-	-	1	-	-	1
- IH[b]	-	-	-	-	-	1	-	-	1
CORRESPONDENCE - FS	-	-	-	-	-	-	-	-	-
ADMINISTRATIVE OFFICER - FS	-	-	-	-	-	-	-	-	-
- IH	-	-	-	-	-	-	-	-	-
GENERAL DESCRIPTION:									
School Objective	-	-	-	1	1	-	-	1	2
International Club or Center	-	-	-	-	-	-	1	1	1
International Division	-	-	-	-	-	1	-	-	-
International Programs	-	-	-	-	-	1	-	-	1
Other International Facility	-	1	1	-	-	-	2	1	1

TABLE 13--Continued

	NO. CAROLINA			PITTSBURGH			TULANE		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
GENERAL INFORMATION:									
FS Admission Information	-	-	-	-	-	1	-	1	1
FS Advice on Costs	-	-	-	-	-	1	-	-	-
FS Fees	-	1	-	-	-	1	-	-	-
FS Health Insurance	-	-	-	-	-	-	-	-	1
FS Financial Aids	-	-	-	-	-	1	-	-	-
FS English Proficiency	-	-	-	-	-	1	1	1	2
FS Orientation	-	-	-	-	-	1	1	-	1
FS Housing	-	1	-	-	-	-	-	-	-
FS Special Advice	-	-	-	-	-	-	-	-	-
American Overseas Fellowships	-	-	-	-	-	-	-	-	1
International House	-	-	-	-	-	-	-	-	-
International Center	-	-	-	-	-	-	-	-	1

TABLE 13--Continued

	NO. CAROLINA			PITTSBURGH			TULANE		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
PROGRAMS OF STUDY:									
Environmental Sciences	-	-	-	-	-	1	-	-	-
Family Planning and Population	-	-	-	-	-	1	-	-	-
Health Administration	-	-	1	-	-	-	-	-	-
Health Planning	-	-	-	-	-	1	-	-	-
Infectious Disease and Tropical Disease	-	-	-	-	-	-	1	-	1
International Health	-	-	-	-	-	1	-	-	1
Maternal and Child Health	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	-
Public Health Education	-	1	1	-	-	-	-	-	-
DEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	1	-	2	-	-	-
INTERDEPARTMENTAL PROGRAM WITH INTERNATIONAL CONTENT	-	-	-	-	-	1	-	-	-
RESIDENT PROGRAM	-	-	-	-	-	-	-	-	1

TABLE 13--Continued

	NO. CAROLINA			PITTSBURGH			TULANE		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
COURSES OF INSTRUCTION WITH INTERNATIONAL CONTENT:									
Behavioral & Social Sciences	-	-	-	-	-	2	-	-	-
Biostatistics, Demography and Epidemiology	-	-	-	-	-	-	-	-	-
Environmental Health	-	-	2	-	-	-	-	-	-
Family Planning and Population	-	-	1	-	-	2	-	-	3
Health Administration and Public Health Practice	1	-	1	1	2	-	-	3	3
Health Education	-	-	1	-	-	-	-	-	-
Interdepartmental Courses	-	-	-	-	-	-	-	-	-
International Health	-	-	-	-	-	3	-	-	7
Maternal and Child Health	-	-	-	-	1	-	-	-	-
Medical Care and Hospitals	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	1	-	-	-	1
Public Health Nursing	-	-	-	-	-	1	-	-	-
Tropical Public Health and Infectious Diseases	-	-	-	-	1	-	3	4	-

TABLE 13--Continued

	NO. CAROLINA			PITTSBURGH			TULANE		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
SPECIAL OVERSEAS STUDY TRIPS: (short)									
Health Services Administration	-	-	-	-	-	-	-	-	-
Maternal and Child Health	-	-	-	-	-	-	-	-	-
Nutrition	-	-	-	-	-	-	-	-	1
OVERSEAS STUDY PROJECTS (longterm or ongoing)	-	-	-	-	2	2	-	-	1
CENTERS WITH INTERNATIONAL COMPONENT:									
C. for Prevention of Infectious Diseases	-	-	-	-	-	-	-	-	-
C. for Population Studies	-	-	1	-	-	-	-	-	-
C. for Community Health and Medical Care	-	-	-	-	-	-	-	-	-
INTERNATIONAL CENTER FOR MEDICAL RESEARCH AND TRAINING	-	-	-	-	-	-	-	-	1
FACULTY DESIGNATED "INTERNATIONAL"	-	-	-	-	-	2	-	-	12
TOTAL CITATIONS	1	4	9	3	8	29	9	12	47

[a]FS = Foreign Student

[b]IH = International Health

TABLE 14

UNIVERSITY OF PITTSBURGH GRADUATE SCHOOL OF PUBLIC HEALTH, DEPARTMENT OF PUBLIC HEALTH PRACTICE, INTERNATIONAL HEALTH PROGRAM 1970-1971

The opportunities and the obligations of the United States of America in International Health have increased tremendously during recent years. The total improvement of health is a universally shared concern of all peoples. Although disease does not recognize international boundaries, the services and facilities for its control continue to be artificially confined within political boundaries. In an age of rapidly improving communications and worldwide travel, international mobility of health workers has become a primary necessity. Thus international health is a most important aspect in modern public health education, leading the student towards a thorough understanding of its philosophy, objectives, operations, and problems. With rapidly increasing population in the face of a slower rate of increase in food production, in industrial output, in production of health and related manpower, and in construction of health facilities, the probability of large-scale starvation, of epidemic disease, of social unrest and of new wars in the years to come is distressingly great. Throughout the world, the problem of urbanization, environmental quality deterioration, increasing demands for services for the chronic and mentally ill patients, are being demonstrated just as in the United States of America, and the health problems associated with poverty are even more apparent in most parts of the world. Consequently, the type of teaching and training required to prepare a health worker to function effectively in the international field or on an international level, whether in bilateral, multilateral, voluntary agency programs or in an industrial setting, requires today, more than even, critical and highly-specific program content convering a very wide field of disciplines. There is no question any more that health -- at national or international levels -- has been recognized in principle as an essential component of social and economic development. With rapid rise in demands for health services resulting from population growth per se, from urbanization, education and industrialization in the face of limited resources, the type of public health worker needed includes the academic generalist possessing different combinations of education and skills and the effective planner and administrator, capable of working productively with problems of social and economic development outside of a single national setting. To function effectively within a given society, the health professional has to know how to relate health to the other sectors of his society, such as education, industry, agriculture, to the very fabric of government; and he must appreciate more fully than ever before the relationship of national value systems to the planning for and operation of health services as well as the role of religion and social attitudes peculiar to each country.

TABLE 14--Continued

The specific objectives of our international health curriculum include:

1.) To train students and academicians from both the United States and other countries for health work on an international level, with particular reference to the cross-cultural rural and rapidly changing urban world populations.

2.) To direct students majoring in international health and working towards a master's degree; course work, which is expected to require one to two years, depends on the qualifications and previous experience of the student.

3.) To develop and coordinate teaching and research activities within the School concerned with international health, such as administrative structures, planning and action programs, public health practices, and social, economic, and cultural determinants of health behavior.

In order to achieve these goals:

a.) Specific international health courses are offered, which treat, in depth and with a definite interdisciplinary approach, general and specific health problems occurring not only in developing nations, but also in developing areas of any region of the world; and

b.) Appropriate use is made of relevant courses, seminars, and facilities which already exist in other departments and schools -- such as those in the Department of Epidemiology and Microbiology, the Population Division, the Graduate School of Public and International Affairs, the School of Education, the College of Arts & Sciences, etc. -- of the University of Pittsburgh (eventually even collaborating with other Pittsburgh institutions of higher learning) by means of close cooperation and faculty exchange.

A maximum quality standard is required for admission to this program. Accordingly:

1. Each student must have a baccalaureate degree or its equivalent in a discipline basic to the health professions;

2. Each student must be proficient in at least one foreign language;

3. Each student must have had previous international field experience.

TABLE 14--Continued

SPECIAL COURSES IN INTERNATIONAL HEALTH REQUIRED FOR ALL INTERNATIONAL HEALTH MAJORS*	
IH211	Administration and Programming in International Health
IH221	Special Problems in International Health
IH225	Research Seminar: Problems in International Health

*Course credits, schedules, staff, and descriptions omitted.

University of Pittsburgh Bulletin Graduate School of Public Health, 1970-1971, March 1970, pp. 102-104.

TABLE 15

THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH, THE DEPARTMENT OF INTERNATIONAL HEALTH, 1970-1971

Carl E. Taylor, M.D., Dr.P.H.
Professor; Chairman of the Department

Timothy D. Baker, M.D., M.P.H., Professor

George G. Graham, M.D., Professor

William A. Reinke, Ph.D., Professor

(Forty-two additional faculty are named.)

The Department of International Health was established in 1961 in accordance with the long-standing interests of the School, and in response to the needs of the Agency for International Development, the U.S. Public Health Service, and the World Health Organization for teaching and research in international health.

The M.P.H. program is designed primarily for students interested in working with the World Health Organization, the Agency for International Development, medical missions, public health service programs abroad, the Armed Forces, foundations, and industrial firms. The program is also intended for foreign students with interests in national health planning, health and economic development, population dynamics, the teaching of community medicine to medical students, the role of health auxiliaries, and geographical epidemiology.

Elective courses recommended include the following:

For students with interests in health planning and administration: International Health 1,2,3,4,5,8, 9,10,24; Biostatistics 3,4; Medical Care 1,2.
For students with interests in geographical epidemiology and tropical medicine: International Health 1,2,6,8; Biochemistry 8; Epidemiology 4,14; Pathobiology 6,8 or 9,12; Environmental Health 2; Biostatistics 4.
For students with interests in the interactions of health and population growth: International Health 1,2,3,4,5,7,8,9; Biostatistics 4,6; Epidemiology 14; Population Dynamics 1,3,6,8.

Opportunities for Dr.P.H. study are available for students who meet the School's requirements. Doctoral research projects may be

TABLE 15--Continued

arranged in countries where the department is working, thus permitting faculty supervision of field work.

Residency training in international health, approved by the American Board of Preventive Medicine, offers opportunities for gradually increasing responsibility under supervision in both administrative and research endeavor, with particular opportunity for work with our field research teams.

Senior international health workers may undertake special work. Individualized programs can be developed both for international agency employees who have been working overseas, and for health officials from developing countries who want a period of academic study before moving on to positions of greater responsibility.

Current program and research interests include: a system whereby faculty members rotate between the Baltimore headquarters and our field projects; health planning studies in Chile; population dynamics with field studies in India, Chile and Nigeria; national health manpower studies in Taiwan, Turkey, Peru, and Nigeria; health and economic development; functional analysis of rural health centers in India, Turkey and Taiwan; the role of auxiliaries in health and family planning programs; the role of nurses in the delivery of child health care in Nigeria; assessment of health conditions in developing countries with field studies in Ethiopia, Peru, Chad and Afghanistan; comparative patterns of medical education with field studies of rural internships in India and the rural orientation of doctors in Turkey and Iran; a cooperative program with the department of community health in Lagos Medical College; and the epidemiology of leprosy with a field study in Bengal.

The integration of health and family planning services increasingly occupies the attention of the department. Our largest research projects are concerned with working out in the field the variables influencing acceptance of family planning, with particular attention to defining the minimum package of health services required to ensure effective use of family planning at varied developmental levels. Doctoral candidates and residents participate in these field projects.

Comprehensive Health Planning. A specialized training program has been developed in the field of comprehensive health planning. This program is multidepartmental and multidisciplined in its approach to the methodology of comprehensive health planning. The program has a broad University orientation and is designed to make use of all resources available in the Hopkins complex: the Homewood Campus Departments of Political Economy, Political Science, and Social Relations; the training programs in the School of Hygiene and Public Health in medical care and hospitals, behavioral sciences, administration and economics; as well

TABLE 15--Continued

as The Johns Hopkins Hospital and the city and state health departments and the regional planning agencies in the area. The major government health agencies -- the United States Public Health Service, the Social Security Administration, the National Institutes of Health, the National Library of Medicine, and the Pan-American Health Organization -- are also conveniently located in the Baltimore-Washington area.

The program is designed for candidates for the Master of Public Health degree, as well as for more advanced students working toward the Doctor of Public Health degree or a residency in preventive medicine who elect to major in comprehensive health planning. For the candidates for the Master of Public Health degree, the standard courses in biostatistics, epidemiology, public health administration, and special public health programs form the background for the more advanced courses.

Those electing to specialize in comprehensive health planning will be expected to take courses in demography, political science, public administration, economics of health, quantitative decision procedures, systems analysis and operations research, health manpower planning, and health facilities planning.

The program reaches its peak during the fourth quarter with an intensive course designed to develop an intimate understanding of the planning process. At this time the major methodological elements are summarized and applied to the actual development of a comprehensive health plan. For this part of the program the full-time degree candidates are joined by a group of senior planners and administrators sent by their national governments for two months of training and experience in planning.

The growing opportunity for quantification in planning has caused us to introduce a corollary program in operations research methods for health planning and practices during the third and fourth quarters. During the third quarter attention is given to the role of mathematical and other models in planning, along with the practical question of acquiring data for the models. Insights gained as a result are then applied to the planning process during the fourth quarter course described above. This program is open both to degree candidates and to special students who come only for the third and fourth quarters specifically for the program.

Weekly seminars during the first two quarters deal with such subjects as the philosophy of comprehensive health planning, the bases of planning including demographic, epidemiological, administrative, social, economic, and political considerations. These seminars also deal with program planning in such fields as environmental health and community mental health, and finally with planning methodology, includ-

TABLE 15--Continued

ing planning, programming and budgeting systems, program evaluation and review techniques, and the new technologies in planning.

The more advanced students may undertake research projects in the field with practical application of the methodology of planning to real problems in the community.

Courses*

22A01 International Health 1. Introduction to International Health

22A02 International Health 2. Seminar for Program Planning and Project Development in International Health.

22A03 International Health 3- Biostatistics 3- Medical Care and Hospitals 28. Quantitative Decision Procedures.

22A04 International Health 4- Behavioral Sciences 4. Planned Change.

22A05 International Health 5- Public Health Administration 5- Medical Care and Hospitals 8. Comprehensive Health Planning.

22A06 International Health 6- Epidemiology 7. Epidemiologic Field Studies of Infectious Diseases.

22A07 International Health 7- Population Dynamics 7. Family Planning Administration.

22A08 International Health 8. Area and Language Study.

22A09 International Health 9- Medical Care and Hospitals 29. Teaching of Community Medicine in Medical Schools.

22A10 International Health 10- Public Health Administration 3. Economics of Health.

22A20 International Health 20. Special Studies and Research.

22A24 International Health 24- Medical Care and Hospitals 24- Public Health Administration 24. Methods in Health Services Planning.

International Health Seminar.

Tropical Medicine Seminar.

Health Planning and Administration--Joint Departmental Seminar.

*Course credits, schedules, staff, and descriptions omitted.

The Johns Hopkins University Circular, School of Hygiene and Public Health, 1970-1971. New Series 1970, No.5, Vol.90, August 1970, pp. 59-64.

TABLE 16

HARVARD SCHOOL OF PUBLIC HEALTH PROGRAMS
IN INTERNATIONAL HEALTH 1970-1971

The School of Public Health has developed a Division of International Health. The primary objective of this Division is to utilize all departments and facilities of the School, as well as other related divisions of the University, to provide a comprehensive, effective, and efficient program of teaching, research, and service in all fields of international health.

The programs centered in the School, together with related course offerings in other divisions of Harvard University and the Massachusetts Institute of Technology, offer the student a broad background in preparation for future careers in the World Health Organization, the Agency for International Development of the U.S. State Department, the U.S. Public Health Service, the Peace Corps, the Armed Forces, industrial organizations, mission groups, philanthropic foundations, or with other governments and agencies providing varied careers in international health and in planning health services for developing countries.

The relevant course offerings are not concentrated in any one department of the School, since all departments have broad international interests in their respective fields. In addition to the requirements for the Master of Public Health degree, a varied selection of elective courses is available in the various Departments of the School in preparation for careers in international health.

Other divisions of Harvard University, namely the:

Medical School
Faculty of Arts and Sciences
Graduate School of Government
Center for Middle Eastern Studies
East Asian Research Center and
Development Advisory Service of
Center for International Affairs

provide additional opportunities for study in medicine, economics, public administration, anthropology, government, social relations, language, and related subjects for students with special interests in particular regions of the world. Cross-registration opportunities for students interested in similar course offerings given by the Massachusetts Institute of Technology are also available. The various catalogues of these Faculties may be consulted for further details.

Programs of study may be selected leading to the Master of Public Health or Master of Science in Hygiene degree. Advanced students may be

TABLE 16--Continued

accepted as candidates for the Doctor of Public Health or Doctor of Science in Hygiene degree. A three-year residency program for physicians preparing for certification by the American Board of Preventive Medicine in the area of General Preventive Medicine (International Health) is also available to selected students.

Areas in which supervised field work or research may be undertaken will vary, depending on current opportunities afforded and the availability of qualified supervision. For example, under the sponsorship of the Department of Tropical Public Health, trainees have been engaged in studies on schistosomiasis in Nigeria and Brazil, on malaria in Gambia, and on nutritional anemias in Uganda. The Department of Nutrition has sponsored trainees in nutritional studies in Colombia. Other relationships have been or are in the process of being established with the Hopital Albert Schweitzer in Haiti, Ministry of Health in the Bahamas, Puerto Rico, Jamaica, Brazil, Tunisia, Italy, Israel, Lebanon, Saudi Arabia, Nigeria, and in other developing areas of the world. Assignments to international agencies for work experience or research activities abroad are made only when the School is assured that competent local supervision and guidance are available.

Examples of current international research being conducted by the School include trachoma research in Saudi Arabia; effects of lysine enrichment of wheat and rice in Tunisia and Thailand; comparative heart disease studies in Ireland and U.S.; nutrition research in Colombia and Israel; population studies in Chile, Greece, United Arab Republic and India; typhus in Yugoslavia; research on urinary calculi in Thailand; cooperative cardiovascular disease investigation in Japan; relative importance of hereditary environmental factors in cardiovascular disease in Israel; collaborative studies on cervical cancer, breast cancer and leukemia involving numerous countries; and comparisons of prevalence of chronic respiratory disease between the United States and the United Kingdom, and the United States and Japan.

The School has sponsored triennial meetings of the Industrial Council for Tropical Health since 1950. These conferences bring together guest experts, members of the Faculty, and medical and managerial personnel of corporations having interests in tropical regions for scientific and practical discussions of health problems. Through these conferences the School has established a wealth of international contacts which are of mutual benefit to industry, the School, its students, and alumni throughout the world.

International House, the School's residence for its graduate students and their families, both from the United States and abroad, provides an unusual opportunity for international contacts and extracurricular activities with professional health workers from a variety

TABLE 16--Continued

of countries. Some twenty-two to twenty-eight nations are represented in this group each year. Throughout the year there are opportunities for informal interchanges of ideas between students and their families. In addition, there are frequent discussions on topics of international interest, including presentations by international students on the culture, geography, social structure, and health problems of their home countries.

Finally, the Boston area as a whole provides a stimulating atmosphere for students interested in international affairs through such agencies as the local chapter of the Society for International Development, World Affairs Council, Pan-American Society of New England, and many other agencies, programs and activities.

More current details on residency opportunities or other aspects of these programs may be obtained by addressing inquiries to Dr. Richard H. Daggy, Associate Dean for International Programs at the School.

Harvard School of Public Health, Announcement of Courses and General Information, 1970-1971. Official Register of Harvard University, Vol. LXVII, Number 9, July 3, 1970, pp. 173-177.

TABLE 17

COMPARISON OF ORGANIZATIONAL RESPONSE PATTERNS
TO GROWTH OF INTERNATIONAL HEALTH BY
SELECTED SCHOOLS OF PUBLIC HEALTH

	Ad hoc Pattern	Departmental Program Pattern	Departments Pattern	Division of Dean's Office Pattern
Institutional Commitment	-	a	b	b
Organizational Structure	-	a	c	c
Developmental Difficulties	-	a	b	b
Visibility: internally	a?	a	c	b
: externally	-	a	b	c
Identity	-	a	c	b-c
Flexibility	a?	a	b	c
Functionality	a?	a	c	b
Financial: stability	-	b	c	c
: clarity	a?	b	c	b
Continuity	-	b	b	c

- absent [a]lowest or least. [b]midrange. [c]highest or most.

TABLE 18

INTERNATIONAL HEALTH ACTIVITIES OF U.S. GOVERNMENT AGENCIES

1. Department of State

   a. Office of International Organizations
   b. Bureau of Educational and Cultural Affairs
   c. Agency for International Development

2. Department of Defense

   a. Military Assistance Program (Army, Navy, and Air Force)
   b. Direct Operations of Armed Forces (Army, Navy, and Air Force)
   c. Other (Advanced Research Projects Agency)

3. Department of Health, Education and Welfare

   a. Public Health Service

      1) Office of International Health
      2) Health Services and Mental Health Administration
      3) National Institutes of Health
      4) Food and Drug Administration
      5) Environmental Health Service

   b. Social and Rehabilitation Service

4. Peace Corps

5. Department of Agriculture

   a. Commodity Credit Corporation
   b. Agricultural Research Service
   c. Economic Research Service
   d. Foreign Agricultural Service

6. Department of the Interior

   a. Trust Territory of the Pacific Islands
   b. Bureau of Commercial Fisheries
   c. Other Research Activities

7. Department of Commerce

   a. Census Bureau
   b. National Bureau of Standards (radiation research)
   c. Office of Technical Reports

8. Department of Labor

TABLE 18--Continued

9. Atomic Energy Commission

   a. Division of Biology and Medicine
   b. Division of International Affairs

10. National Science Foundation

11. Veterans Administration

   a. Grants to Philippines for Medical Care of Veterans
   b. Training Program
   c. Research

12. Smithsonian Institution

13. Export-Import Bank

Adapted from Lee, Philip R., "International Health Programs, The Role of the United States Government". Mimeographed copy of speech at the School of Public Health, University of California at Los Angeles, October 13, 1964, pp. 15-16.

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