

The Work of the World Health Organization

Expert Committees

In the conviction that our readers would find useful a review of the work of some of the expert committees of the World Health Organization, Public Health Reports asked leading authorities in this country who have participated in committee deliberations to report briefly on the activities of the committees. The editors are grateful for these contributions.

As described in the "Technical Reports Series" of WHO:

"Expert advisory panels and committees are an essential part of the machinery of WHO. Their purposes and functions are to provide the organization with technical advice on a particular subject.

"The Director-General has authority to establish expert advisory panels and to select and appoint their members, who undertake to contribute by correspondence and without remuneration technical information

or reports on developments within their own subjects; they serve in their personal capacity and not as representatives of governments, institutions, organizations, or other bodies.

"Members of expert committees are selected by the Director-General from the panels, the choice being governed by the agenda of each session.

"The selection of members of both expert advisory panels and committees 'shall be based primarily upon their ability and technical experience,' and 'due regard shall be paid to adequate geographical distribution.'

"Reports of expert committees express the corporate views of the members and are of basic importance as guides to the organization in the development of policies and programs. They do not, however, of themselves commit the organization to any policy or action; nor do they necessarily express the views of the organization. The publication of reports of expert committees is authorized by the Executive Board."

Environmental Sanitation

The significance of environmental sanitation as a process for alleviating disease on a world-wide basis was given a high priority among the First World Health Assembly's immediate objectives. The assembly early recognized that the failure to control man's physical environment or the inadequacy of implementing its regulation brings major deleterious effects to the majority of the population of the world.

The World Health Organization convened, therefore, the first session of its Expert Committee on Environmental Sanitation to delineate the functional areas in which sanitation should evidence the greatest results at a minimum of cost. The committee realized that in nearly all the countries of the world deficiencies in sanitary practice were major causes of disability and death and that progress in correction might be slow because of inadequate resources both of money and of professional personnel. Emphasis was placed upon (1) encouraging the early participation of professional engineers in governmental health activities; (2) giving high priority to the training of sanitation experts; (3) arousing the interest of national administra-

tions in the development of sanitation programs and in the modes of financing them; (4) demonstrating by WHO the coordination of environmental sanitation with other health activities in current assignments; and (5) the developing of demonstration teams having both technological and educational objectives.

Significant progress on these fronts has already taken place despite long and extensive delays which essentially represent processes of education of both medical officer and engineer. The kind of practice that has grown up in sanitation in the United States, the United Kingdom, and a few other areas serves, perhaps, no more than 20 percent of the population of the world. The translation and adaptation of these values to the cultures, practices, and structures of other countries is a slow evolutionary process. Since none of these activities are the exclusive professional province of any one group, the integration of sanitation work into the team objective of medical officer, nurse, and laboratory worker offered early challenges. More and more in each country, the medical officer's concept has become wider

and deeper, and his natural leadership of team activity has been extended to the acceptance of more engineering sanitation participation.

However, the mere handful of sanitary engineers in the world (probably not more than 10,000) could not be expected to provide the leadership essential for these activities in a world population of more than 2 billion without developing on all fronts almost every gradation of professional and subprofessional sanitation worker.

A second committee session was therefore convened in October 1951 to devote its attention to the specific problem of the education, training, and utilization of personnel for environmental sanitation. The report of this committee proposed qualifications, training, and functions for engineers, plant operators, specialists, industrial hygiene personnel, sanitarians, and voluntary lay leaders. It re-emphasized the great desirability of maximum teamwork with the medical officer of health, the nurse, the health visitor, and other personnel engaged in health other health personnel.

ABEL WOLMAN, B.S.E., Dr.Eng.,
Professor of Sanitary Engineering,
The Johns Hopkins University

The executive board of the World Health Organization recommended at its third session the establishment of an Expert Committee on Antibiotics to deal with research in antibiotics and various technological problems. This committee held its first meeting in April 1950.

The problems considered were mainly concerned with the production of antibiotics; training and research; feasibility of international conferences on antibiotics; abstracting service; type culture collections; surveys of penicillin requirements; modernization of UNRRA penicillin plants; production of streptomycin; the present position of antibiotics; and development of research in therapeutics.

Design of antibiotic plants and procurement of equipment and personnel presented the main difficulties which prevented certain countries, especially those of eastern and central Europe, and some underdeveloped areas, from producing penicillin and other antibiotics. The committee recommended that WHO assist member states in procuring

essential equipment and that it provide assistance in collaboration with the economic organs of the United Nations to countries unable to obtain the necessary currencies.

The committee also recommended that WHO assist member states to use available training facilities for creating teams of highly trained scientific and microbiological engineers; that WHO grant fellowships for one year or more to persons with a sound knowledge of chemistry, engineering, or microbiology to enable them to take part in research work in antibiotics; and that it negotiate with institutes having appropriate training facilities for acceptance of WHO fellows as participants in their research programs.

Several institutes offered facilities for training such personnel: the Department of Microbiology, Rutgers University, New Jersey; the Department of Biochemistry, University of Wisconsin; the Nobel Institute of Medicine, Stockholm; the University of Oxford, England; and the Istituto Superiore di Sanità, Rome. The first training center has been established

at the latter institute, and a special symposium was held there at the end of June 1951.

The committee proposed the organization of a symposium to discuss primarily the newer antibiotics now finding application in chemotherapy, and the relation of antibiotics to tuberculosis and venereal diseases.

It also recommended that the Expert Committee on Biological Standardization be given support in obtaining international standards and reference preparations for antibiotics which, although in the experimental stage, would appear to be of importance.

Attention was drawn to the unsatisfactory terminology sometimes used in the assay of new antibiotics, and attention of authors and editors of scientific journals was directed to the preference for the use of the term "provisional unit" in place of "unit."

SELMAN A. WAKSMAN, Ph.D.,
Chairman, Department of Microbiology, Rutgers University

Biological Standardization

The work of the Expert Committee on Biological Standardization follows in orderly sequence from Ehrlich's original work in 1894 on the standardization of diphtheria antitoxin. The task of the committee is to re-evaluate and replace the old standards as required and to establish standards for the newer biological substances, such as antibiotics, hormones, and enzymes, as rapidly as they can be characterized. Some means of standardization must be developed before newly discovered substances like adrenocorticotrophic hormone (ACTH) can be introduced into rational therapeutics.

At the fifth session of the committee, held in Geneva in December 1951, steps were taken to improve the old standards, as in the case of diphtheria toxoid, as well as to develop

standards for the newer substances such as the antibiotics and hormones. The scope of the work has expanded greatly from the classical immunological preparations to a wide variety of biological substances, including diagnostic antigens and serums, antibiotics, hormones, and enzymes. In an effort to keep abreast with new developments, steps were taken to establish a collection of authors' preparations.

The scope of the work of the committee was broadened at the request of international organizations interested in veterinary medicine to include certain preparations requiring standardization for use in research and in medical practice in that field. This is a logical development since frequently the same substance, for example tuberculin, serves equally well in both human and veterinary medicine.

Many of the products for which biological standards have been established now appear in the Pharmacopoea Internationalis I, and it is obvious that the two committees concerned must work closely together.

Much remains to be done in biological standardization. For example, there is still no usable reference preparation for as old a product as rabies vaccine. Then, too, research developments in the newer fields with antibiotics, hormones, and enzymes are just getting under way, and standards or reference preparations will be required for the drugs resulting from this research as they come into everyday use in medical practice.

WILLIAM G. WORKMAN, M.D.,
National Institutes of Health, Public Health Service

An expert committee of the World Health Organization and two joint groups of the Food and Agriculture Organization and the World Health Organization have been set up to advise on the control of a group of diseases common to both man and animals.

Rabies

Treatment with rabies hyperimmune serum combined with a course of vaccine was recommended for field trials in human beings by the WHO Expert Committee on Rabies at its meeting in Geneva in April 1950. Experimental findings show that the serum preceding a course of vaccine gives promise of saving most of the severely exposed human rabies cases in which short incubation time does not allow the development of active immunity.

Iran was designated for the trials. Rabid wolves bit 60 persons in 1949, and 22 persons were bitten during the first 4 months of 1950. These cases are always severe and at least half the victims are bitten in the head and face. The mortality rate exceeds 30 percent despite intensive vaccine treatment. The hyperimmune serum treatment would thus be subject to severe test.

The committee also urged further ecologic studies on vectors of the disease. The existence of asymptomatic carriers was recognized from observations of vampire bats as rabies vectors in South and Central America.

To reduce to a minimum the number of people subjected to antirabic treatment unnecessarily, the committee suggested the following indications for vaccine treatment: A person treated with vaccine and exposed to rabies a second time within 3 months needs no further treatment unless the second exposure is severe; if the interval is between 3 and 6 months, two reinforcing doses of vaccine, 1 week apart, are indicated; if more than 6 months have passed, treatment should be the same as for an original exposure.

Allergic reactions to vaccine treatment, such as fever, shock, angioneurotic edema and adenopathy may be avoided by changing to a vaccine made from the brain tissue of a different species of animal.

The committee recommended that, where feasible, a biting animal should be observed for 10 days. If the animal shows no signs of illness during this period, it can safely be assumed that it was noninfective.

Where restrictive measures only are used to control rabies, dogs should be confined for at least 90 days, if vaccine is used. This period may be reduced to 30 days after vaccination. The committee recommended that exposed animals be destroyed or isolated for 6 months or, if vaccinated within 12 months of exposure, revaccinated and isolated for 30 days.

In extensive land areas where rabies exists among domestic and wild animals, the committee recognized that quarantine measures are impractical.

Brucellosis

Strain 19 vaccine was thought the best available to combat brucellosis by the Joint FAO/WHO Expert Panel on Brucellosis which met in Washington, D. C., in November, 1950. This vaccine approaches the ideal as defined by the panel: it confers adequate protection; it is safe, that is, it is dead or relatively avirulent and shows no tendency to increase in virulence in the animal body; it causes a minimum of interference with the seroagglutination test; and it is easy to produce, preserve, and distribute.

In discussing control and eradication procedures for bovine brucellosis, which are based on the elimination of infected animals or vaccination, the panel agreed that the tube seroagglutination test is one of the most reliable methods for detecting infection in individual animals. The rapid plate test is very good, too, when standardized with the tube test. The ring test for milk is

valuable to locate infected herds or milk supplies.

Although the problem was limited, the panel recommended that infected herds of goats, sheep, and swine be slaughtered if the infection was new to the area, as there are no satisfactory vaccines for these animals.

The panel reviewed bacteriological culture and typing of *Brucella* and recommended criteria for final identification. FAO and WHO have established 12 brucellosis centers for control of the disease in animals and man. To stimulate eradication programs, the panel urged the reporting of the disease.

Human brucellosis was discussed by the panel under clinical criteria, diagnostic criteria, and therapy. The value of these subjects was studied before the panel reported their conclusions. Routes of transmission from animals to man were also discussed.

Zoonoses

More than 80 zoonoses, "those diseases which are naturally transmitted between vertebrate animals and man," including virus, rickettsial, bacterial, fungus, protozoal, helminth, arthropod, and insect diseases, were listed by the Joint WHO/FAO Expert Group on Zoonoses at its 1950 session in Geneva.

Bovine Tuberculosis

The most important disease problem considered was bovine tuberculosis. The group recommended tests for detection and slaughter as a highly effective method for controlling the disease. Several countries have almost eradicated the disease with this technique.

As a temporary expedient in special circumstances, vaccination was suggested. The limitations of BCG use for cattle are: the animals react to tuberculin for at least 1 year, and this can interfere with the test and slaughter program; the intravenous use of BCG vaccine, as observed in the United Kingdom, may cause undesirable systemic reactions; the large unsightly swellings

which frequently follow subcutaneous use of BCG may be objectionable to the herd owner; and adequate and fresh supplies of the vaccine are frequently difficult to obtain in certain areas and countries.

The group also pointed out the importance of protecting the animals against human carriers and recommended health supervision of milkers and attendants.

Q Fever

The group suggested local and regional surveys to determine the prevalence of Q fever in man and animals; research on diagnostic tests other than the complement-fixation test; immunization of domestic animals, and chemotherapy for man and animals.

Anthrax

To control agricultural outbreaks of anthrax, the group recommended

the establishment of local diagnostic facilities, low-cost or free livestock vaccination, and that rural populations be taught to recognize the early signs of anthrax in man and animals.

Psittacosis

Re-examination of quarantine policies on psittacosis was recommended by the group in the light of new knowledge of wider disease reservoirs, the lower prevalence, and successful use of antibiotics in treatment of human cases. Although the group supported the prohibition of commercial shipments, they suggested easing quarantine regulations for individual pets, rare birds, and breeding stock.

Hydatidosis

Successful control of hydatidosis requires the reduction of the disease

in its animal reservoir, the dog in most cases. Two points for its control were emphasized by the group—eradication of canine infection by anthelmintic treatment and stray dog control, and sanitary animal slaughter and prevention of infection.

Virus encephalitides, leptospirosis, tularemia, bilharziasis, trichinosis, glanders, and salmonellosis were discussed for future action. The group recommended food hygiene problems for early study by WHO and FAO and also recommended the development of international standards for veterinary biological products in conjunction with other groups working on the same problem.

JAMES H. STEELE, D.V.M., M.P.H.,
Communicable Disease Center, Public Health Service

Nursing

The Expert Committee on Nursing was first convened in February 1950 to advise the World Health Assembly on measures to insure the recruitment of nurses in proportion to the needs of each country and to advise on the education of nurses.

The committee recommended that WHO urge each member government to take an inventory of its nursing personnel, including auxiliary nursing personnel, and to estimate the number of each type which would be needed by the developing health programs in each country. A manual was sent to each member government to assist the proper authorities in surveying the nursing resources and needs of the nation. The surveys, the committee hoped, would provide a basis for more specific and long-range planning, and would focus attention on the needs for nurses of all types and on methods for filling the needs.

Attention was called to a few simple principles of nursing education, including the desirability of sound professional leadership and careful selection of students. The committee recommended that WHO

undertake fundamental research with the assistance of social scientists to determine the health needs of people in two or more societies. The results of this study, the committee believed, would serve as a basis for realistic and pertinent designs for nursing education in various countries. It would help avoid duplication of an established pattern, like that of the United States, in countries where the cultural patterns and health developments are vastly different.

The committee noted the opportunity for cross-representation of health disciplines on several committees, including the Expert Committees on Maternal and Child Health and on Professional and Technical Education. It also emphasized the importance of granting fellowships to several types of health workers from one country to provide teams that could work together in that country after study abroad.

The committee's task at its second meeting in October 1951, was to advise on the provision of nursing service and the preparation of nursing personnel in areas of the world where

nursing services are scarce. The importance of the inclusion of health in the "fundamental education" programs of UNESCO and other specialized agencies was discussed. A few examples of nursing service that meet a variety of needs of the people were collected and included in the report, most of them from the countries where health programs in nursing are new aspects of national life.

The committee strongly recommended that, in the schools of nursing in such countries, students be given instruction and experience in teaching and supervising untrained auxiliaries. Nurses graduated from one of these schools, regardless of previous educational background or quality of training, will be expected to assist in establishing health services in situations where no other health workers exist. The committee was concerned with obtaining translations of original work on practical health subjects for use in nursing schools and in community health programs.

LUCILE PETRY, R.N., M.A.
Chief Nurse Officer, Public Health Service

Drugs Liable to Produce Addiction

The Expert Committee on Drugs Liable to Produce Addiction is advisory through WHO to the United Nations and its Commission on Narcotic Drugs. On the international level it formulates an opinion on the addiction producing properties of a drug and under some circumstances indicates the degree of control to which the drug should be subjected. It also discusses and makes recommendations on general problems in the field of drug addiction. The committee has met three times, in January 1949, 1950, and 1952.

The committee has declared to be addiction producing the drugs methadone, meperidine, and about a dozen derivatives of these synthetic analgesics, and has recommended that, like morphine, they be subjected to international control. A similar recommendation has been made for 3-hydroxy-N-methylmorphinan (Dromoran), its codeine analog, and a number of new morphine derivatives. It has considered also the addiction liability of a number of commercial preparations of morphine-like substances as a basis for continuance or relaxation of their international control.

The committee has drafted definitions of drug addiction and addiction producing drugs on the one hand and of habituation and habit-forming drugs on the other hand, and has

recently appended to these definitions a statement to clarify the distinction it believes can and must be made between these two conditions and the drugs producing them.

Much thought has been given to the gravity of the heroin situation, and the committee is of the opinion that complete abolition of legally produced heroin in the world would greatly facilitate the struggle against illicit use of this substance. On its recommendation the Director-General of WHO has inquired of governments throughout the world why their physicians consider heroin necessary in medical practice. Although in 1949 only 24 nations were known to have discontinued the use of heroin, replies now show that 50 member states of WHO have discontinued or are willing to discontinue the medical use of the drug. This changing attitude on the part of the medical profession prompted the committee to recommend that WHO pose to the remaining nations the direct question, whether or not they could do without heroin in the interest of public health and safety.

The committee has reviewed the increasing use and abuse of barbiturates throughout the world. Barbiturates, the committee believes, must be considered drugs liable to produce addiction and, therefore,

dangerous to public health. It advises that nations take measures to strengthen control of these drugs.

At its first session the committee recommended the establishment of a mechanism for the selection of common nonproprietary names, especially for addiction producing drugs which come under international control. As a result the WHO Expert Committee on the International Pharmacopoeia has set up a Subcommittee on Nonproprietary Names. The names selected are now used by the Permanent Central Opium Board and Drug Supervisory Body in all of their documents, and governments are urged to use these names whenever possible.

Great activity has been shown in recent years in the development of synthetic morphine-like analgesics. So far all of the new substances of merit otherwise have been addiction producing; nevertheless this line of investigation should and will continue. WHO's Expert Committee on Drugs Liable to Produce Addiction will continue to keep the closest watch on developments in this field and must continue to play a most important role in assessing the inherent dangers of all analgesic drugs.

NATHAN B. EDDY, M.D.,
National Institutes of Health, Public Health Service

Epidemiology and Quarantine

The Expert Committee on International Epidemiology and Quarantine is the Nestor of WHO committees. When the amalgamation of the epidemiological services of the League of Nations, UNRRA, and the Office International d'Hygiène Publique had been recommended by the International Health Conference in New York, the Interim Commission of WHO, at its first session in July 1946, appointed a Committee on Epidemiology and Quarantine. The functions of this committee included supervision of the application

of the international sanitary conventions and of any other measures necessary to check the spread of epidemics across national frontiers.

The responsibilities inherited from UNRRA included the delineation of yellow fever endemic areas and the approval of yellow fever vaccines according to the international sanitary convention of 1944. Subsequently, study groups were set up on cholera, smallpox, plague, and typhus. When WHO became a permanent specialized United Nations agency in 1948, the committee

received the status of a regular expert committee.

Meanwhile it was realized that the existing international quarantine conventions were scientifically outmoded. Furthermore, the failure of many governments to ratify the more recent conventions had brought about a state of confusion in matters relating to quarantine. The First World Health Assembly therefore directed the Expert Committee on International Epidemiology and Quarantine to draft new international sanitary regulations to replace

the existing quarantine conventions.

Draft regulations were prepared by the expert committee in December 1949. The Expert Committees on Insecticides and on Plague, the Study Group on Cholera, and the Yellow Fever Panel had met previously and made valuable contributions. The draft was submitted to governments for comment, and revised by the committee in October 1950 to include a number of the suggestions received. In April 1951, a Special Assembly Committee, consisting of official delegations from member states, met in Geneva for 4 weeks to discuss the revised draft and approve a text. After minor

amendments, this text was unanimously voted by the Fourth World Health Assembly on May 25, 1951. The regulations are to go into effect October 1, 1952.

For the first time in history, uniform quarantine regulations will be applied throughout the world, and an ideal worked for during a whole century will have been attained. Impediments to international traffic for purposes of epidemic control have been limited, and better protection against pestilential diseases has been obtained.

The committee's quarantine section has, among other problems, dealt with complaints from govern-

ments concerning the application of the international sanitary conventions.

The Expert Committee on Plague produced, in 1949, a detailed outline of plague control field work and of procedure in the elimination of reservoirs and vectors of plague in sea and airports.

The Joint ILO/WHO Committee on the Hygiene of Seafarers dealt with subjects not included in the sanitary regulations but, nevertheless, of importance to international travel and transportation.

KNUD STOWMAN, Ph.D.,
Division of International Health,
Public Health Service

Malaria

The Expert Committee on Malaria in its fourth session held at Kampala, Uganda, December 1950, reaffirmed the policy formulated in its earlier sessions (1947-49) for the World Health Organization. The committee recommended that the highest priority be given to malaria control in any WHO program of technical assistance to highly malarious areas. The committee emphasized the continuing need for active encouragement of malaria control by all means within WHO's province.

The committee recommended that the assignment of malaria control demonstration teams to underdeveloped areas be continued and that these teams be staffed with men engaged on a long-term basis. The term of each team should be of at least 3 years' duration. By these means a reservoir of trained staff would be constantly available. The teams should be sent to areas in which no adequate demonstration of the utility of modern measures of malaria control have as yet been made. One of the chief functions of such teams would be to assist in the development of local organizations and in the training of staff. Short-term field fellowships and travel grants for training in malariology were recommended as more useful than long ones.

The Expert Committee on Malaria

approved the recommendations of the Malaria Conference in Equatorial Africa and recommended that WHO impress on member states and on the Commission for Technical Cooperation in Africa South of the Sahara (CCTA) the importance of implementing these recommendations. WHO with the cooperation of CCTA, where relevant, should establish, the committee felt, an annual malariology course in Africa and offer help to one or more member states which undertake malaria control in large areas where the adult population has a high degree of tolerance to the disease.

The committee agreed with the recommendations of the Expert Committee on Insecticides regarding the method and timing of the disinfection of aircraft and with the composition, dosage, and methods of distributing insecticides in aircraft. It recommended that WHO increase the practical value of the specifications laid down by the insecticides committee for spraying apparatus by preparing specification charts of sprays now on the market.

In the prevention of the spread of anopheline vectors of malaria by international transport, the Expert Committee on Malaria agreed with the Expert Committee on Insecticides on techniques to be employed and recommended that an interna-

tional agreement be sought on the basis of the designation of the international airports according to their degree of infestation rather than on a designation of countries or other large areas in this regard.

The committee reaffirmed its position on measures taken by the Economic and Social Council of the United Nations, the World Health Assembly, and other bodies to promote the free flow of insecticides, insecticidal formulation, raw material and equipment for their manufacture, and the apparatus for their application. It approved the United Nations' suggestion that the best means of implementing the pertinent resolution of the World Health Assembly would be through the medium of an international agreement. The committee emphasized that, as noted in its third report, experience has proved residual spraying to be a measure of major importance. A monograph on therapeutics and revision of malaria nomenclature were recommended.

G. ROBERT COATNEY, Ph.D.,
National Institutes of Health, Public
Health Service

The activities of the Expert Committee on Insecticides will be described in more detail by Dr. Samuel W. Simmons in a paper scheduled for publication in a subsequent issue.

Health Statistics

In the past 5 years, outstanding accomplishments have been made in the field of international health statistics. Most notable was the agreement reached at the Sixth International Decennial Conference for the Revision of the International List of Causes of Death (Paris, 1948). This agreement led to the international adoption of a single statistical classification for illness and causes of death.

Scarcely less important was the conference's sweeping five-point proposal, later adopted by the World Health Assembly, for international cooperation in vital and health statistics. These five recommendations and the action that followed them are summarized below.

1. An Expert Committee on Health Statistics was created by the World Health Organization. Three meetings have been held, with these principal results:

At the committee's request, the World Health Organization established a center to adjust problems arising in the application of the international statistical classifica-

tion. This world focal point for clearing this type of problem has been operating since January 1, 1951.

International definitions were established for live birth and foetal death, and the collection of comparable data in this area was stimulated.

Intensive work was done on problems of cancer statistics and hospital statistics.

International needs in the broad aspects of morbidity statistics were reviewed.

2. National Committees on Vital and Health Statistics have been created by 35 member nations. These committees are a powerful force in promoting national health statistics. Moreover, by studying problems referred to them by the expert committee, they provide a channel through which ideas from national sources reach international levels for consideration and action. Thus, a mechanism has been established for assuring direct national participation in solving international problems in health statistics.

3. The recommendation that the World Health Organization develop its statistical service led to creation of a WHO statistical unit that serves not only the needs of WHO but also as a secretariat for the expert committee.

4. The Paris conference recommended occasional international technical conferences on problems in vital and health statistics. At its third meeting, the expert committee proposed that WHO call an International Conference of National Committees on Vital and Health Statistics in the spring of 1953, and suggested items for the agenda.

5. In promoting international health statistics, WHO is cooperating with the interested services of the United Nations and specialized agencies, particularly with the Statistical Office of the United Nations, which has responsibility for collecting vital statistics and establishing vital statistics standards.

HALBERT L. DUNN, M.D., Ph.D.,
National Office of Vital Statistics,
Public Health Service

Maternity Care

The WHO Expert Committee on Maternity Care, meeting in Geneva in November 1951, considered all aspects of maternity care and its importance to the health and well-being of all communities.

The committee endeavored, as far as information was available, to keep clearly in sight the differing stages of economic development in various parts of the world, and the differing needs in this field as well as in other aspects of public health. Although the committee realized that one comprehensive plan cannot be applied in all countries, it agreed on certain standards of maternity care for implementation in stages, over a period of time, in countries where there has been little development. At the same time, the committee considered that the development of maternity care has not always proceeded soundly in the economically more developed

countries. The committee recommendations are designed to serve as a guide to governments instituting this service.

Maternity care is closely linked with existing social, labor, and educational services, and many of these services offered by governmental agencies are needed to supplement any sound program of maternity care. Hence, the committee emphasized that it is important for governments to recognize the desirability of cooperation between such agencies at a national level. The committee stressed also that maternity care should be regarded as an integral and important part of any broad public health program.

The transcendent importance of the training of midwifery personnel, especially for underdeveloped countries, was reviewed at length and a recommendation made to the World

Health Organization that a joint expert committee, composed of members of the advisory panels on nursing and maternal and child health, be convened to give further consideration to the training of midwifery personnel at all levels. Prior to the convening of such a joint committee, information regarding the present patterns of maternity service and the training of personnel will be collected from various countries. This is in keeping with the general recommendation of the committee that the World Health Organization undertake fundamental research to determine the real health needs of peoples and to study, in this connection, the need for maternity care and the way in which it can best be satisfied.

NICHOLSON J. EASTMAN, M.D.,
The Johns Hopkins Hospital, Baltimore, Maryland

Upon its organization, the Expert Committee on the International Pharmacopoeia of the World Health Organization drew upon a rich heritage of nearly 50 years of endeavor. Although there was earlier interest in an international pharmacopoeia, the year 1900 saw the first formal action among nations. The resulting Brussels Conferences of 1902 and 1925 and the establishment in 1937 of a Technical Commission of the Health Organization of the League of Nations had the purpose of unification of national pharmacopoeias. Thus, one of the first functioning groups created within the WHO in 1947 was the Expert Committee on the Unification of Pharmacopoeias, which took up the work retarded but not entirely interrupted by the war. It was apparent that achievement of the desired end was most feasible through the preparation of an international pharmacopoeia. Indeed, it was for this reason that the name was changed to the Expert Committee on the International Pharmacopoeia.

Because of the pre-existing groundwork the committee's efforts produced results quickly in the form of volume I of the Pharmacopoea Internationalis, published last October. Volume II is in preparation for release late this year. The two vol-

umes, to be available in English, French, and Spanish, will provide standards of strength, quality, and purity for nearly 300 basic drugs in the forms found useful generally in accepted medical practice. In addition to therapeutic agents, including the antibiotics and other established chemotherapeutic drugs, diagnostic aids and immunological preparations are covered. Numerous appendixes provide the required general pharmaceutical and bacteriological tests and tables of usual and maximal doses for adults and children. Included is the serodiagnostic test for syphilis, using cardiolipin and purified lecithin.

An important aspect of the committee's work is the selection for international adoption of common, nonproprietary names of drugs. This program to eliminate a growing state of confusion among pharmacists and physicians will coordinate the efforts of several national bodies now selecting names for drugs.

Addenda will be issued to volumes I and II of Ph. I. until a complete revision is made. Plans call for a revised edition printed as a single volume about every 5 years. This program will keep the compendium up to date and will insure its continued usefulness, especially to the

great majority of the 79 member states of WHO which do not have a national pharmacopoeia. It will also enhance the value of the Ph. I. to the few countries, such as the United States, England, and France, which now have an active pharmacopoeial revision program.

A book of standards for purity and potency of drugs is essential to any national health program. This principle has been recognized in many countries to the extent that the national pharmacopoeia has legal recognition and is binding upon pharmacists and drug manufacturers. In many of the countries without national pharmacopoeias, the Ph. I. will probably be adopted legally. Elsewhere, independent preparation of national pharmacopoeias has resulted in a lack of uniformity that causes confusion and danger to travelers and is a hindrance in the utilization of scientific information. With the Ph. I. as a model, these inconsistencies will decrease even though the book is not given legal status. These are but part of the benefits expected from the efforts of the Expert Committee on the International Pharmacopoeia.

LLOYD C. MILLER, Ph.D.,
Director of Revision of the Pharmacopoeia of the United States of America

Mental Health

Because of the tremendous shortages in trained psychiatric personnel and in facilities from a world-wide viewpoint, the first meeting of the Expert Committee on Mental Health recommended that the World Health Organization accept the preventive principle in the application of psychiatric knowledge as the most practical approach to its mental health program.

The suggested standard for adequate care is one psychiatrist per 20,000 population. The United States has more than 5,000 psychiatrists and about 700,000 psychiatric beds, but India, for example, with more

than twice the population, has at most 80 psychiatrists and 20,000 psychiatric beds. Hence, the only practical approach, the committee was convinced, was through preventive measures.

Meeting at Geneva, Switzerland, August 29 to September 2, 1949, the committee was composed of psychiatrists of six nationalities. Twenty topics were discussed and recommendations made on 19. Among the 19 were principles and priorities in mental health, health education, alcoholism and drug addiction, maternal and child health, and venereal diseases.

In each discussion the committee was confronted with the problem of inadequate numbers of trained personnel. The committee concluded that perhaps the most effective method to implement a mental health program would be through the use of public health workers.

A concrete point on which WHO could give assistance to member nations was the recommendation that it aid in the development of facilities for training public health workers in the principles of preventive mental health work, in training workers in clinical psychiatry, and in assisting pediatricians and other physicians to

obtain psychiatric and mental hygiene training.

The committee's second meeting at Geneva in September 1950 was, therefore, devoted to consideration of the application of mental health principles through public health workers, and how the job could be done.

As a result of this consideration, the mental hygiene section of WHO subsequently convened a committee

of experts on alcoholism and the original committee as such was discharged. Thus, through an ad hoc committee of specialists in a limited area, more productive results could be expected.

The significance of the expert committee plan of WHO as it applies to mental health and psychiatry was:

National and cultural experiences were brought together on a world basis. The common denominators

of these widely varying experiences were used to try to develop potential world-wide application. The recommendations of the committee, once approved by the World Health Assembly or the Executive Board, could be passed on as authoritative statements to the chief health officers of the member nations.

WILLIAM C. MENNINGER, M.D.,
The Menninger Foundation, Topeka,
Kansas

Venereal Infections and Treponematoses

Venereal diseases have been recognized as an urgent international health problem from the earliest days of WHO. An Expert Committee on Venereal Diseases was formed by the Interim Commission and has functioned continuously since January 1948, when its first meeting was held. The committee has met twice since that first session, in Paris in 1948 and in Washington in 1949.

In outlining the principles and scope of an international program to combat venereal diseases, the committee gave first priority to the control of syphilis, followed by gonorrhea, chancroid, lymphogranuloma venereum, and granuloma inguinale, in that order. Treponemal diseases such as bejel and yaws, which constitute grave health problems in tropical and subtropical areas, have since been added to its terms of reference. Of the forms of syphilis, the early infectious stages and infantile and prenatal syphilis have received major emphasis.

Because penicillin therapy permits an approach to control of treponemal infections in terms of whole population groups, the committee has recommended WHO aid for control work in economically underdeveloped areas where prevalence of one or more of the treponemal diseases is high. It has also urged the importance of assisting countries to establish a basic venereal disease control structure headed by a health officer specializing in venereal diseases. From its first meeting, the group has pointed out the need for training in venereal disease work through demonstrations, consultative services, and fellowships, and for distribution of venereal disease literature and reference lists.

As an outgrowth of a recommendation of the committee in 1948, a Subcommittee on Serology and Laboratory Aspects was formed, and has held two meetings. Establishment of this group reflects in a concrete

way the committee's belief that effective control of syphilis depends to a large degree upon efficient serologic testing. The serology subcommittee has placed emphasis upon evaluating the efficiency of the various serologic tests, distribution of test antigens, and standardization of laboratory procedures.

The committee has expressed its belief that specialized health programs will prove most productive, on a long-term basis, if supported by a general program of disease prevention. Demonstration teams in venereal disease control and other specialties may prove valuable aids not only to combat specific health problems but also as beginning points from which over-all health programs may evolve.

JOHN F. MAHONEY, M.D.,
Commissioner of Health, City of New
York

Nutrition

Malnutrition and even outright starvation are major causes of illness and death in many nations. Furthermore, no country, no matter how abundant its food supply, can afford to take the complacent view that abundant food automatically confers optimal nourishment.

Malnutrition is preventable. The scientific principles and practices by which nutritional health can be produced and maintained are known. However, these facts have not been

disseminated to all the peoples of the world. The application of this knowledge is further limited by traditional but improper dietary practices, but qualitative deficiencies in available food, and, unfortunately in some countries, by insufficient quantities of food.

Two international organizations, the World Health Organization and the Food and Agriculture Organization, have recognized these facts and the programs of each have the com-

mon objective of raising levels of nutrition throughout the world. Action programs must be tailored for each nation according to the nature of its nutritional problems and to the many factors which may be producing the problems.

To advise and assist in attacking this complex situation, a joint WHO/FAO Expert Committee on Nutrition was convened in 1949 and 1951. The 10 members are appointed, 5 by each organization, to

provide the highest technical competence and to obtain geographic representation.

The action programs of FAO and WHO are administered separately but coordinated closely both internationally and regionally. The joint expert committee also assists and advises in coordinating and in delineating the activities of the two organizations. In FAO programs, emphasis is on the production, distribution, and consumption of food, while in WHO it is on nutrition in relation to the maintenance of health and the prevention of disease. The FAO program, which is somewhat older than that of WHO, can point to many outstanding accomplishments. Internationally accepted data on world food consumption, calorie requirements, nutrition facts for educational purposes, and approved techniques for dietary surveys have been published and have found wide use. WHO has focused on studies

of nutritional deficiency diseases, such as kwashiorkor, endemic goiter, problems of infant feeding, and on methods for the determination of nutritional status. Internationally acceptable standardized methods for the latter purpose are being prepared by the committee. Both FAO and WHO have provided fellowships for training in nutrition and have provided expert consultants and direct technical assistance to member governments. They have conducted workshop training courses and can take much credit for instituting or improving nutrition services in many governments.

Much remains to be done. Agreement on internationally accepted dietary standards, methods of determining nutritional status which will permit comparison of one country with another, and simple methods for determining the prevalence of deficiency diseases will do much to lay a solid basis for international improvement in nutritional health.

Kwashiorkor is undoubtedly the most prevalent and serious nutritional deficiency disease in the world today. The committee has done much to gather and publicize the facts about this scourge. Rather simple methods are available for its prevention and cure, if they can be made known and applied. Beriberi continues to be a major problem in certain parts of the world. It too can be prevented and cured. Endemic goiter is still a major problem. Effective ways of iodizing locally produced salt would help combat this disease. The world population is still increasing faster than its food supply. Ways must be found to increase and extend the available food. The FAO/WHO Joint Expert Committee on Nutrition has and should continue to supply world leadership in meeting these problems.

JAMES M. HUNDLEY, M.D.,
National Institutes of Health, Public
Health Service

School Health Services

The Second World Health Assembly approved the inclusion of an Expert Committee on School Health in the WHO program for 1950.

The committee's task was to develop principles which would be useful in developing or extending school health services in all parts of the world where schools existed. These principles were to be as useful in underdeveloped areas as in areas more favored in their technical development. It was no small assignment.

Fortunately for the committee, there was much help available from WHO sources. Members of the Secretariat of WHO brought their experiences to bear on our problems. Especially were we indebted to the divisions of nutrition, mental health, public health nursing, maternal and child health, and health education for their contributions.

Resource persons were found, too, in the WHO's maternal and child health regional advisers who had come to Geneva from the regional offices in Washington, D. C., Alexandria, Egypt, Hong Kong, and New

Delhi, India. These people, together with observers from UNESCO, ILO, and the Social Activities Division of the United Nations, supplied the committee with first-hand data and provided "criteria of applicability" by which the committee could judge the usefulness of its product.

The report as submitted to and approved by the Executive Board of WHO gave consideration to the following:

1. The reasons for asking for special attention to children in school; children's growth and developmental needs; opportunities for health instruction.

2. The broad aspects of a school health program which emphasizes cooperative planning, the inclusion of services, programs, and an environment which promotes the health of children. Definite guides for desirable emphases to be placed by physicians, nurses, dentists, teachers, and others in their work with and for children.

Three basic principles presented in the report are: (1) a program of

health for children can be conducted when only a teacher is available; (2) professional health staff, including physicians, nurses, and dentists, contribute additional services which enrich the health experiences of the child; (3) irrespective of the number and type of personnel available, a satisfactory educational program for the child can be developed only when there is an accepted philosophy of teamwork among the staff.

Other recommendations in the report emphasized the responsibilities and interrelationships of personnel serving children, their families, and the community. Suggestions were made, too, regarding the preparation of professional personnel as well as auxiliary helpers. Final sections presented statements relating to the administration of the school health program, and suggestions for future research.

DOROTHY B. NYSWANDER, Ph.D.,
Professor of Health Education, Uni-
versity of California

Prematurity

It is generally recognized that premature birth plays a major role in causing neonatal deaths. For this reason the Expert Group on Prematurity was convened in April 1950 to prepare for the World Health Organization recommendations for reducing premature infant mortality. The experts, who came from seven countries, represented the fields of obstetrics, pediatrics, and nursing.

First consideration was given to promotion and establishment of pertinent uniform definitions to provide for comparable vital statistics. The committee recommended that the international definition of prematurity of the First World Health Assembly be adopted by all countries and that the terms "abortion" and "stillbirth" be supplanted by the term "foetal death."

In considering programs to lower the incidence of prematurity, as well as the mortality from premature birth, the expert group pointed out that the initiation of a preventive program might well precede that of a specialized-care program. Named as prerequisites were the establishment of general public health measures and the strengthening of maternal and child health programs. Recommended content of a preven-

tive program included research into causes of premature birth; an educational program to acquaint pregnant women with the importance of early and adequate prenatal care; provision for prenatal services; adequate hospital facilities for women with complications of pregnancy; the enactment of legislation to protect the working woman; and provision for services to fulfill the requirements of such legislation.

In regard to the initiation of programs for care of premature infants the expert group named certain prerequisites such as accurate birth and death statistics; evidence of a downward trend in infant mortality; qualified medical and nursing personnel; adequate hospital facilities and equipment; and social services. The organization of the program should be related to the pattern of maternity care in a given country, that is, the proportion of births in hospital and at home. Under certain conditions a program might be initiated as a local demonstration before extension of the program to wider areas.

The minimum requirements outlined for establishing a hospital unit for premature infant care included qualified and experienced medical

and nursing staffs in adequate numbers; location of the unit in an area selected to minimize cross-infections; adequate space and special facilities; medical and nursing record forms. The importance of parent-teaching and follow-up were emphasized. In some areas, home care of prematures might be satisfactory if provision were made for hospitalization of sick infants and those of low birth weight. Certain requirements for a home-care program were specified.

The essentials for development of a complete program were outlined by the experts under four main headings: administration; medical, nursing, and social services; education of professional personnel and the public; and research.

Finally, the expert group urged the awarding of fellowships for study and research in problems of prematurity and recommended to WHO the development of an information service on all aspects of the problem of prematurity.

ETHEL C. DUNHAM, M.D.,
Formerly Director of Division of
Research in Child Development,
Children's Bureau

Public Health Administration

The Expert Committee on Public Health Administration was authorized by the Third World Health Assembly in May 1950. The range of this committee encompasses the entire field of public health practice. This includes not only the content of organized programs, but also the organization, administration, financing, and staffing of health services.

Perhaps the best way to describe the work of this committee is to compare it with the other expert committees drawn from larger panels set up by WHO. Most of the expert committees were set up to focus international understanding and professional guidance on specific diseases, conditions, or standards. Their concern is with methodology,

with technical knowledge, and with scientific developments. The Committee on Public Health Administration is interested in all of these developments and programs as they become part of the armamentarium of organized health services. In other words, it is concerned with the organization, the resources, the facilities through which scientific knowledge is applied in the service of people.

In a sense, the work of this committee does not lend itself to ready classification or to finite results. Criteria and methods can be developed; techniques can be standardized, and the same kinds of knowledge or principles can be applied wherever the problem exists. But

actual services may reach people in a variety of ways, through many organizations, and through widely differing patterns of administration.

Thus, one of the first jobs of this committee is to gain a better understanding of problems of mutual interest and of the factors which complicate them. It may then address itself to fostering a rational approach to health administration suited to the needs of different countries of the world. The committee will determine, for example, where and how health might be improved through organized effort, and suggest measures applicable under different situations—geographic, economic, social, and cultural. One aim is to develop not specific blue-

prints but guidelines of successful practices based on the combined thinking and experience of representatives of many different nations and methods of operation.

It was in this frame of reference that the Expert Committee on Public Health Administration held its first session in November 1951. Specifically, the committee considered the activities that might be included in organized health programs, and lessons that have been learned from different types of local health organization and practice in various countries of the world. It attempted also to list and classify health services provided by official health agencies, to enumerate the health

functions at different levels of government, to show how the peoples of the world can participate in health work, and to outline some of the problems and needs of professional and technical personnel.

Obviously it was possible to consider these and similar problems only in a tentative and introductory fashion. Careful study is still needed in many fields—in the details of organizing and financing health programs, in the organization of health services in relation to socioeconomic and national background, in specific patterns to meet specific needs, to name only a few. Of particular importance is more thorough exploration of the problems in public health administration

encountered in the underdeveloped countries of the world.

The membership of this committee brings together a wide variety of experience in health administration. By acting as a resource and reference body for assembling and evaluating information and experience, by stimulating further study and exchange of knowledge, and by formulating general principles of desirable health administration and organization, it can play an important role in bringing us closer to world-wide health goals.

IRA V. HISCOCK, M.P.H., Sc.D.,
Chairman of the Department and
Professor of Public Health, Yale
University

Tuberculosis

The WHO Expert Committee on Tuberculosis has held five sessions since it was created in April 1947 at the third session of the Interim Commission.

At the first meeting in 1947, the committee discussed its fields of activity, techniques for the international control of tuberculosis, and emergency measures.

Because tuberculosis is epidemic in many countries, initial action was taken in applying emergency measures. The committee recommended that demonstration teams be formed to conduct intensive programs of BCG vaccination in war-devastated countries. Although the committee realized that this measure alone would not be sufficient to control tuberculosis in these countries, it hoped that this type of operation and its successful demonstration would encourage local groups to develop and conduct more comprehensive programs.

The BCG vaccination program has made vigorous progress with the

generous and energetic cooperation of the Scandinavian Red Cross Societies and UNICEF. Studies are also being made to determine the duration of immunity conferred by this vaccine and to establish more definitively its effectiveness as a preventive.

The more general fields of activity in international tuberculosis control were designated as prevention, case finding, isolation and medical care, rehabilitation and aftercare, and social and economic protection of afflicted families.

Among the techniques of control outlined by the committee were (1) determination of the extent of the problem; (2) recruitment and training of professional personnel; (3) provision for physical facilities, supplies, and equipment; (4) public health education; (5) field services in administration, epidemiology, laboratory, and clinical work; (6) the provision for adequate funds; and (7) the development and establishment of uniform procedures in:

tuberculin and tuberculin testing, preparation and clinical use of BCG, classification of tuberculosis, X-ray interpretation and mass radiography, laboratory diagnosis of tubercle bacilli, and evaluation of new chemotherapeutic agents.

It also suggested the establishment of cooperative working relationships with all official and voluntary groups actively engaged in some aspect of tuberculosis control; eradication of tuberculosis in cattle; counsel to national governments and health departments on sound laws and regulations pertaining to human and bovine tuberculosis; and review and evaluation of the program at regular intervals.

During 1950, the expert committee was enlarged and reconstituted as a panel of experts in tuberculosis, to be consulted from time to time as new problems arise.

HERMAN E. HILLEBOE, M.D.,
Commissioner, New York State
Department of Health

For purposes of brevity, names of committee members and other facts have been omitted from these statements. Full reports of the committees, however, are published in the World Health Organization's "Technical Reports Series." These and other publications of WHO are available through the Columbia University Press, International Documents Service, 2960 Broadway, New York, 27, N. Y. Orders may also be addressed to: World Health Organization, Sales Section, Palais des Nations, Geneva, Switzerland.