

WHO

contributions

to

CHILD HEALTH

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FROM THE TIME that the Technical Preparatory Committee established by the United Nations met in Paris in March 1946 to prepare a draft constitution for the World Health Organization, it was a foregone conclusion that one of the major purposes of the World Health Organization would be to promote the development of maternal and child health programs, with national agencies and with other international organizations cooperating to this

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end. Two clauses in the proposals of that committee made this quite clear.

In the preamble, after defining health and setting forth a series of declarations with respect to the rights of individuals to health, the responsibilities of States and related truths, the preparatory committee proposed inclusion of the statement, "Healthy development of the child toward world citizenship is of paramount importance." This proposal both in the committee and on the floor was submitted as part of the draft constitution to the International Health Conference, held in New York in June and July 1946.

During the discussions at this conference this proposal became the subject of active debate in committee and in plenary sessions. As a result the words which were obviously subject to disagreement—"toward world citizenship"—were dropped, and, instead, a new phrase was substituted to express the primary intent of the original language, namely, that all children must develop the ability to live harmoniously with their neighbors and with all peoples throughout the world. Because of the importance of this concept to all the world today, it is desirable to state here the language as it was finally adopted by the International Health Conference and made a permanent part of the constitution of the World Health Organization. The sixth clause of the preamble says: "Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development." Fortunately, also, since preambles are sometimes thought of as aspirations only, the framers of the constitution included in the list of functions of the Organization the same concept in words calling for action. Here the words are: "To promote maternal and child health and welfare and to foster the ability to live harmoniously in a changing total environment."

It should be remembered that this constitution was adopted in July 1946, only a few months after the first atomic bomb had been dropped on Hiroshima. In presenting arguments for the adoption of this reworded clause for the preamble, Dr. Brock Chisholm, the delegate from Canada, pointed out the complete change in the situation in the previous 2 years.

Dr. Chisholm went on to say: "The environment of every person in the world now is the whole world; and it is essential to the health of every individual that he develop beyond the capacity to live with his own kind of people in his own little environment and be able to live with all kinds of people all over the world."

He continued: "This is not a social or an educational concept. It is a health concept, because no person who is incapable of doing this will in the future be able to live at peace with himself—because over the radio, through newspapers, by movies, he is brought into immediate contact with everything that goes on all over the world, and he must be able to live in harmony with these things in order that he may not suffer the results of frustration of his own gregarious instinct. . . . It has been necessary for every organism to be able to change and adjust to a changing environment throughout all time. If man proves unable to make this adjustment, he will follow the dinosaur into oblivion and will become completely obsolete."

When he supported Dr. Chisholm's proposed new wording, as indeed many delegates did, Dr. Frank Boudreau, speaking for the United States, expressed the hope "that the World Health Organization would undertake as soon as possible a program of work designed to achieve its objective."

It was with this as a frame of reference, then, that the work of WHO in the field of maternal and child health got started. The first steps were taken by the Interim Commission, which had been established to act until enough countries ratified the new constitution to bring the World Health Organization itself into existence. The first proposals were to pick up the type of activity that had been carried out by the Health Organization of the League of Nations, namely, studies of infant mortality.

However, by January 1948, before these studies could be begun, more comprehensive proposals for a new maternal and child health program to be undertaken by the World Health Organization were already under consideration at the fifth session of the Interim Commission in anticipation of the First World Health Assembly which was expected to be held the following June. Substantial interest had been growing among members of the commission in

a program of maternal and child health that would be more in keeping with the intent of the constitution and that would lay the ground for cooperation with many countries.

By January 1948, it had also become clear that the World Health Organization would have an increasing responsibility to provide the professional and technical help required by United Nations International Children's Emergency Fund in connection with its programs in the child health field. A comprehensive plan for the development of a maternal and child health program (1) over the next few years was therefore laid before the Interim Commission. Its warm reception resulted in maternal and child health being placed in the priority list of recommendations for program action second only to malaria, which was well known to be the world's greatest killer. In the introduction to its proposal, the Interim Commission said:

"An international programme for maternal and child health is recommended in view of the high incidence of preventable deaths among infants and mothers in large areas of the world; the effectiveness of available techniques in reducing mortality and improving the health of infants and mothers; the immediate and continuing need, for the protection of coming generations, of scientific guidance in the utilization of available foodstuffs; the high incidence of communicable and other preventable diseases among children; the widespread mental and emotional maladjustment and insecurity among children and youth; the insufficient understanding and knowledge among parents and others of the causes of ill-health and abnormal behavior of children; and the effects of economic and social changes on the physical, mental and emotional development of children."

The objectives of the proposed program were:

"To assist governments in developing services and facilities that will assure adequate maternity care, the best possible chance of survival to infants, and to all children normal physical growth and development, mental and emotional health, and freedom from preventable diseases; to pool knowledge, acquire new facts, develop standards of care, and distribute information in respect of all relevant matters; and

to cooperate with other agencies on joint undertakings which apply knowledge and techniques in the fields of social and biological sciences and of education to problems of maternity and childhood."

The commission recommended the establishment of a section on maternal and child health as a part of the WHO Secretariat, the establishment of an expert advisory committee on maternal and child health, and the employment of individual experts and teams on a temporary basis as required.

The First World Health Assembly, when adopting in July 1948 its program for the first year's work, included maternal and child health among the four top priority programs, and instructed its executive board to take the steps necessary to implement the commission's recommendations. The story of the work for children done by this and other sections of WHO is described later.

Reference must be made here, however, to the establishment of UNICEF and to the effective collaboration that gradually developed between the Fund and WHO, particularly with the Maternal and Child Health Section. Fortunately for the world's children the General Assembly of the United Nations decided in December 1946 to create a fund to which governments and people would contribute voluntarily for assisting children in war-devastated countries with food, clothing, and medical supplies, for training personnel, and for child health purposes generally. That this new organization must necessarily collaborate with WHO and other appropriate specialized agencies of the United Nations was foreseen by the General Assembly.

The resolution under which UNICEF was established provided that the Fund should be primarily responsible for making available equipment and supplies and for assisting with training, but that it should look to the specialized agencies, especially to WHO, for the technical help and assistance required by countries seeking assistance for the development of their child health and welfare programs. It became necessary very early for these organizations to develop methods of cooperation that would assure satisfactory relations with governments and with each other.



A Turkish mother soon to have her ninth child is shown here receiving prenatal care for the first time. Set up with the help of WHO and UNICEF, the mother and child center in Ankara is now carried on by the national staff.

In July 1948 the First World Health Assembly, recognizing that certain difficulties in the relationships between the two organizations had arisen and might continue unless a framework for appropriate and continuous cooperative action were set up, recommended the establishment of a Joint Committee on Health Policy to be composed of members of the executive boards of the two organizations. Later in the same month these executive boards, meeting simultaneously in Geneva, Switzerland, adopted essentially similar resolutions creating the Joint Committee on Health Policy of the two organizations.

In brief, the functions of this committee are to approve all health programs through which

UNICEF proposes to meet the requests of countries for assistance and to review these programs from time to time with a view to their evaluation. The committee also assures that the organizations are continuing to work cooperatively to the end that children the world over will receive the best health care possible under the circumstances in the country seeking help. The health programs that have been approved for joint projects fall into three groups: (a) mass health campaigns, such as those for control or eradication of malaria, tuberculosis, yaws and other treponematoses, trachoma, and leprosy; (b) maternal and child health (or welfare) programs, including establishing, equipping, and providing supplies for

maternal and child health centers, training personnel for this type of work, and providing personnel for demonstrations of newer methods of health work with mothers and children; and (c) certain of the food conservation programs, which are carried out largely in collaboration with the Food and Agriculture Organization of the United Nations.

In the past 10 years of their collaboration, these two great international organizations have assisted in the development of many different types of programs that affect the health and well-being of millions of children and mothers in many parts of the world.

Broad Scope of MCH Programs

The mass campaigns against the major communicable diseases and programs to improve the sanitation of the environment are of basic importance to the health of children. But much more is required than the stilling of epidemics. To achieve the stated objectives, it is necessary to reach and to serve the individual child and his family on a continuing basis. This requires some kind of permanent organization in the field and large numbers of trained personnel. At best, this is a painstaking and costly process and it takes time, not only to train personnel but to build services and to gain acceptance and cooperation of the people served. To be most effective MCH services need to be an integral part of general health and medical services of the community, and in many areas of the world such services are in the very early steps of development or are still nonexistent.

During the earlier years, many maternal and child health centers were established on too specialized a basis in advance of general public health development. But there is now increasing recognition that in the developing countries, maternal and child health should not be considered so much a specialty as a medium through which general health measures can reach two large groups in the population having certain special needs in addition to those shared by all. Children under 15 years of age and women of childbearing age constitute between 60 and 65 percent of the population in most of the assisted countries. Because of the prevalence of endemic diseases and malnutri-

tion, purely preventive services focused primarily on the reproductive and growth processes are neither possible nor desirable. But the thousands of MCH centers which have been established as a result of WHO and UNICEF assistance offer unequaled opportunities to combine preventive and simple curative services with health education and provide focal points for activities in home sanitation, nutrition, and communicable disease control for families.

The amount of funds and the size of the staff in the WHO Secretariat entrusted with this gigantic responsibility have been very small. Positions have been provided for two MCH physicians at headquarters and in the vast region of Southeast Asia and one in each of the remaining five regions. In 1956 approximately 11 percent of WHO and UN technical assistance funds expended in the assisted countries were specifically earmarked for maternal and child health (2). Maternal and child health, nursing, including midwifery, and nutrition services combined account for roughly one-fourth of the funds expended in the assisted countries, or about \$1.6 million. During this same year, UNICEF assistance to the building of permanent services in the MCH field amounted to \$3.4 million, or about 18 percent of the program allocations (3).

As previously noted, most of the assistance in maternal and child health is of a joint nature with WHO responsible for providing professional staff and technical guidance and fellowships for professional training and UNICEF the necessary equipment, supplies, transport, and training stipends for local auxiliary personnel. In terms of funds then, the assistance from the two agencies has amounted to less than \$5 million a year, but it must be borne in mind that the assisted countries have expended far more than this as their share of the cooperative effort.

What follows is an account of some of the contributions which WHO and UNICEF have been able to make in assisting governments of some 50 countries in the development of health services for mothers and children. In these countries live above one-half of the children of the world. The vast majority of them live in areas where the infant and childhood mortality rates are at levels which prevailed in the

more developed countries a hundred or more years ago. The principal child health problems are the result of undernutrition and malnutrition combined with an endless procession of infectious and parasitic diseases. Underlying these are poverty and ignorance and a generally unsanitary environment.

MCH Assistance Matches Development

There has been no uniform plan of MCH assistance. In countries with minimal educational and health facilities, few professional health workers, and high prevalence of endemic and communicable diseases, the mass disease control campaigns have had high priority in the beginning. The first MCH assistance has often centered about improvement of any existing, voluntary services. This is followed by the establishment of training facilities for auxiliary MCH workers; simple measures for improving the services of traditional birth attendants, or untrained midwives; and extension of preventive services, especially in maternity care, to new areas as personnel are trained. Fellowships for study abroad have provided a nucleus of professionally qualified doctors, nurses, and midwives. Then, as rapidly as possible, training schools for professional nurses and midwives are established.

A later phase of assistance is the planning and establishment of a permanent health organization to consolidate the gains made in the mass campaigns and to provide a framework for the extension of preventive and curative services and health education. It is in this stage that maternal and child health has made a great contribution to general public health, for it is commonly the first of the permanent preventive health services and forms a nucleus around which general community health programs can be built. In the region of the Americas, emphasis has been on strengthening MCH services as a component part of general health projects.

In the majority of assisted countries at present, basic minimal services are being extended to rural populations as rapidly as possible, and at the same time professional training is being stepped up so as to provide more adequate numbers of professional personnel for super-

vision of the ever-increasing numbers of local centers and for leadership within the countries.

A small group of the assisted countries, such as Austria, Italy, and Spain, have achieved virtually full coverage of the population by basic health services including maternal and child health. Their infant and maternal mortality rates are relatively low. In these, the requests for assistance are in connection with the development of services for prematurely born infants, the rehabilitation of physically handicapped children, the prevention of childhood accidents, and in the promotion of mental health. The assistance has been in the form of travel fellowships, seminars and inservice training courses, short-term services of experts, and the provision of equipment necessary for establishing programs in these special fields.

Between 1947 and 1956, some 600 WHO fellowships were awarded for study abroad of various aspects of maternal and child health. The majority have been awarded to physicians, but nurses, midwives, and a few other categories have been included. The fellows came from 44 countries and territories and studied in 27 different countries.

International personnel have been assigned to 34 countries to assist the governments in establishing or improving their own training institutions for nurses or midwives. And medical schools in 10 countries have had help in establishing or upgrading departments of pediatrics. Assistance in pediatric education can be expected to increase as the UNICEF Executive Board has recently approved the extension of its assistance to medical schools for the training of physicians in pediatrics and preventive medicine. The first of these joint WHO and UNICEF projects is the one at the University of Madras, India. The pediatric department is envisaged as a focal point for the teaching of pediatrics to nurses and midwives as well as physicians, for continuation education for MCH field personnel, for graduate training of pediatrics instructors and for research on the important child health problems of the country.

Assistance has also been given to the All India Institute of Hygiene and Public Health in Calcutta where an MCH unit has been es-

tablished to provide graduate training in MCH for physicians and nurses, with emphasis on the child health aspects. The institute is now training students from a number of countries in Asia. Continued progress will demand more opportunities of this kind for MCH physicians to receive training in general public health and the administrative aspects of MCH as well as in obstetrics and pediatrics.

Service and training functions are combined in the MCH demonstration and training projects, 40 of which have been established in 29 countries. In these, WHO has provided a team consisting of an MCH medical officer and usually one or more public health nurses and midwives. The team works with personnel provided by the government. They establish an MCH unit to demonstrate services appropriate for the area and to provide training for auxiliary MCH workers and orientation and refresher courses for professional personnel.

In many of the countries the great majority of deliveries are attended by untrained traditional birth attendants. Training programs have been established in several countries with WHO-UNICEF assistance to bring about a much needed improvement in the practice of these attendants, the program in the Philippines being to date the most extensive and successful. More than half of the estimated 6,000 attendants have had some training.

An essential feature of all of these training plans is that government counterparts work closely with the international personnel and carry on after the withdrawal of the latter which takes place after 2 to 4 years. The physicians, nurses, and midwives who have been assigned by WHO to these training projects have come from all parts of the world. An MCH team working in India may have a physician from Mexico, a nurse from New Zealand, and a midwife from Sweden. While in the early years, the personnel were recruited principally from the United Kingdom, northern Europe, and North America, many other countries are now able to provide personnel with the requisite training and experience to serve in these posts, adding substantially to the international character of the programs.

There can be no question but that international aid has given a tremendous stimulus to

the training of health workers—1,500 nurses and more than 2,000 midwives in a year's time in India; 650 midwives in Korea; 69 health visitors in Syria; the first class of 11 community midwives graduated in Libya; and 10,000 rural auxiliary nurse midwives in Turkey by 1970. A large number of new training schools and field training units have been established. The enrollments for both professional and auxiliary workers have greatly risen, and refresher courses and inservice training programs are increasing. Educational standards for the professions have been raised. The status of nursing as a career for women has improved. And as a result of the increased numbers of professional and auxiliary health workers, it has been possible to establish thousands of new centers in areas where MCH services have never before been available.

Growth of National MCH Units

A central purpose of all WHO assistance is the strengthening of national health administrations. An evidence of progress in this respect, as well as increasing recognition of the importance of maternal and child health, is the creation of MCH units in national health administrations. Twenty-eight of the 53 governments which have had maternal and child health assistance from WHO have established such units or have plans to do so shortly. Twelve of these have been established within the past 5 years.

The functions of the units vary widely, as do the number and qualifications of the personnel. In many instances, the staff consists of only one medical officer, who serves as adviser to the national administration and has certain limited administrative functions. In several Asian and Latin American countries the staff is larger and is able to assume responsibilities for program development and to provide technical supervision of MCH activities.

There are a few countries now in which well-qualified public health workers are not being fully utilized because the governments have been unable to establish the positions for which the personnel were trained.

In addition to direct assistance to governments, WHO has other responsibilities dele-



In the fight against infant mortality, WHO-trained public health nurses score their first victories when they establish confidence and cooperation. Here, such a public health nurse visits a family living in Chorrera, Panama.

gated to it by member governments and the United Nations. These include coordinating and regulatory functions; collection and distribution of information; pooling of health knowledge, skills, and resources of member countries; and conducting investigations. For want of better terms, these are often referred to as central technical and advisory services. Many of the services rendered by the various headquarters sections make important contributions to maternal and child health. Among them are the statistical services, studies and surveys of nutritional problems and of specific diseases affecting children, mental health, and health education.

Among the chief functions of the MCH Section are the servicing of the expert panel and expert committees in maternal and child health,

the convening of study groups, the conduct of surveys and studies, the development of long-range plans for the MCH program of the organization, and cooperating with other United Nations agencies and with nongovernmental organizations concerned with international programs for children.

There are at present 42 experts from 20 countries on the MCH panel. They include leading authorities in such special fields as prematurity, nutrition, mental and school health, rehabilitation, pediatric and obstetric education, and MCH administration. Other expert panels, such as those in nutrition, mental health, and nursing, also deal with problems of concern to MCH. Through the panel system, the organization has at its command a great wealth of knowledge and skills which it is able to call

on at all times for advice and assistance in the determination of policy and on specific matters.

From time to time expert committees of panel members and less formal study groups are convened to study and make recommendations on specific topics. This process of synthesizing existing knowledge on leading problems and making the results widely available through technical reports is a contribution of great importance. A list of subjects most directly bearing on MCH will serve to indicate the broad scope of the problems which have been considered to date (the numbers represent the WHO Technical Report Series designation): maternity care (51), midwifery training (93), prematurity (27), immunization (6, 61), nutrition (44, 72, 97), mental health (70, 75), physically handicapped (58), epilepsy (130), school health (30), MCH administration (115), childhood accidents (118), and pediatric education (119). Many other reports, particularly those dealing with specific diseases affecting children, have also made important contributions to child health.

Several monographs in the MCH field have reported on studies carried out, in various parts of the world, on behalf of WHO (4-8).

In addition to the influence of the published reports, the bringing together of experts and research workers from various parts of the world has had a great influence in focusing attention on unsolved problems, in stimulating research, and in advancing knowledge more rapidly than has heretofore been possible. A good example is the rapidity with which knowledge has accumulated concerning protein malnutrition in children since 1949. Through a combination of WHO-FAO Joint Expert Committee meetings, field surveys, and the bringing together of research workers from all parts of the world under the auspices of the Josiah Macy, Jr., Foundation, protein malnutrition has come to be recognized within a very few years as one of the most widespread public health problems in the world.

WHO has sponsored two surveys of pediatric education, one in Latin America and the other in the countries of western Europe. The latter was carried out under the auspices of the International Pediatric Association. The convening of a study group on pediatric education in

1956 followed the completion of the surveys. These efforts are part of long-range plans to bring about improvements in pediatric education.

Two reviews of WHO-UNICEF assistance in maternal and child health have been carried out by the staff. The last one was presented to the Joint WHO-UNICEF Committee on Health Policy in 1957 (5). The committee has requested that reviews of certain aspects of the assistance program be presented every other year, thus establishing a pattern of continuing evaluation. If properly supported and well conducted, these evaluation studies will have great influence in guiding the two agencies and the assisted governments as well. This is but one evidence of the growing recognition on the part of both WHO and UNICEF of the need for evaluation of the programs which have grown so rapidly in the past few years.

Long-range plans have been developed for studying a number of MCH problems of worldwide significance. Included are the diarrheal diseases which account for the largest number of deaths of infants and young children in most of the developing countries. The epidemiological, clinical, and bacteriological aspects will be studied with a view to defining more clearly the environmental and host factors which must be considered for practical control in the assisted countries. In the region of the Americas, technical discussions and country seminars on diarrheal diseases have been held and field studies are under way to determine the feasibility of teaching auxiliary field workers techniques of combating dehydration, the immediate cause of death in infant diarrheal infections.

Other studies under way are concerned with a reevaluation of present criteria for prematurity, practical approaches to school health in developing countries, methods for strengthening nutrition services in MCH programs, and methods for improving the preparation of midwives for services to children.

The incomparable opportunities for research in the international aspects of MCH have so far been little exploited by WHO. A few subjects which suggest themselves are the differences in growth and development patterns of children in areas with different child feeding and rearing

practices; the influence of long-established traditional child-rearing practices on mental health; and the effects on mental health of the profound changes in every aspect of life which are resulting from rapid technical development.

As international activities increase, the need for coordination of efforts grows. This has been particularly true for the several United Nations agencies, most of which serve children in some way. Excellent cooperative relationships have developed among agencies working on common projects as exemplified by the WHO-UNICEF partnership in MCH assistance programs, WHO-UNICEF-FAO collaboration in nutrition projects, and the WHO-UNESCO study of teacher education in health.

Several nongovernmental international agencies interested in MCH are affiliated with WHO, an arrangement which facilitates cooperative relationships and endeavors. The joint sponsorship of the survey of pediatric education with the International Pediatric Association and the close relationship with the International Union for Child Welfare are examples. In time, it is likely that these coordination functions will become increasingly important.

Never before have opportunities been afforded health workers from most of the countries of the world to meet together, to talk over common problems, to share experiences, to learn from one another, and to arrive at agreements on common goals. In the course of a year there are innumerable opportunities for such interchange offered under WHO auspices—from the World Health Assembly itself and the associated technical discussions involving persons from all member countries, to small seminars and inservice training sessions for local health workers within the countries.

A better understanding of the nature of the health needs of mothers and children and of methods for dealing with problems give administrators courage to deal with the many obstacles in the way. Leaders in MCH benefit from opportunities to keep up to date and to grow in confidence and in professional competence. And for staff workers, confronted every day with sick, malnourished mothers and children, with inadequate funds and staff, and often with little community appreciation or un-

derstanding of their work, the opportunity to meet occasionally with confreres with similar interests and problems provides much needed encouragement and refreshment. It may well be that the widespread opportunities being afforded for the exchange of ideas will, in the long run, prove to be a greater force in the solution of the world's health problems than advice from experts and supplies and equipment.

It appears justifiable to conclude that substantial contributions to child health have been made during the first 10 years of the existence of WHO and UNICEF. While in most of the assisted countries, only a bare beginning has been made toward reaching the objectives set forth by the Interim Commission, it is, nevertheless, a sound beginning. In order that children can learn to "live harmoniously" in their environment, it is necessary first that they live. It is understandable then, that the major effort in a large part of the world has been directed to this end and to laying the groundwork upon which—as time and resources permit—can be built those services which will promote the health of children in the broadest sense.

REFERENCES

- (1) World Health Organization: Minutes and documents of the fifth session of the Interim Commission. Official Records No. 7, annex 47, maternal and child health programme. Geneva, 1948.
- (2) World Health Organization: Financial report, Official Records No. 78. Geneva, 1956.
- (3) United Nations Children's Fund: Report of executive board. E/ICEF/353. New York, N. Y., 1957. Mimeographed.
- (4) Bovet, L.: Psychiatric aspects of juvenile delinquency. World Health Organization Monogr. Series No. 1. Geneva, 1951.
- (5) Bowlby, J.: Maternal care and mental health. World Health Organization Monogr. Series No. 2. Geneva, 1951.
- (6) Fulton, J. T.: Experiment in dental care. World Health Organization Monogr. Series No. 4. Geneva, 1951.
- (7) Brock, J. F., and Autret, M.: Kwashiorkor in Africa. World Health Organization Monogr. Series No. 8. Geneva, 1952.
- (8) Jelliffe, D. B.: Infant nutrition in the subtropics and tropics. World Health Organization Monogr. Series No. 29. Geneva, 1955.
- (9) World Health Organization: Review of maternal and child health activities and related training of professional and auxiliary health workers. WHO-MCH-64. Geneva, 1957. Mimeographed.