PAN AMERICAN HEALTH ORGANIZATION
ADVISORY COMMITTEE ON HEALTH RESEARCH

ACHR/84/RD
TWENTY-THIRD MEETING
4-7 SEPTEMBER 1984
WASHINGTON D.C.

REPORT TO THE DIRECTOR

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION

Washington, D.C.

PAN AMERICAN HEALTH ORGANIZATION

TWENTY-THIRD MEETING OF THE ADVISORY COMMITTEE
ON HEALTH RESEARCH

Washington, D.C.
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REPORT TO THE DIRECTOR

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TWENTY-THIRD MEETING OF THE ADVISORY COMMITTEE ON HEALTH RESEARCH

REPORT TO THE DIRECTOR

1. ELECTION OF OFFICERS

The members of the Committee unanimously elected Dr. Frederick C. Robbins and Dr. Guillermo Soberón Acevedo as new Chairman and Vice Chairman respectively, and Dr. David Picou and Dr. Raimundo Villegas as rapporteurs.

2. INAUGURAL SESSION

2.1 Address by the Director of the Pan American Health Organization

The Director, Dr. Carlyle Guerra de Macedo, welcomed those attending the meeting and expressed his satisfaction for being able to meet with them. He also extended a warm welcome to Dr. V. Ramalingaswami, Chairman of the Global Advisory Committee on Medical Research.

He then referred to Dr. Soberón's hospitality during the previous meeting held in Mexico last year. He reminded the Committee about PAHO's mission and purpose to collaborate with the Governments in the solution of the health problems of their populations. At that time, he drew a comparison between the principal components of PAHO's mission, the administration of knowledge, and the characterization of research, within the activities of the Organization. The fact that the recommendations issued by the Committee last year served as a stimulus for the work that has been carried out during the last fourteen months and the tremendous developments that science has shown over this period of time was also mentioned. To illustrate this latter point he spoke about the realistic expectation for obtaining effective vaccines against hepatitis B, malaria, and other infectious agents through the use of recombinant DNA technology or peptide synthesis, and that new available technologies are responsible for the development of simpler and more effective diagnostic procedures for communicable or noncommunicable diseases. Both areas in which the Committee was asked to pay special attention last year.

The Director indicated that during this period, research activities particularly in the field of health services have taken a more feasible expression, especially in regard to the definition of the problem and the determination of strategies, which may be considered more effective for the solution of problems in this area. He also said that in addition to discussions on the definition of the strategies by which the Organization will attempt to implement its research policy, efforts were especially aimed at consolidating this policy through the identification of priorities of each of the PAHO programs of technical cooperation. He then invited the Committee to analyze, during the next four days, the various priorities that were identified by each one of the programs.

Dr. Macedo reminded the Committee that the Organization has for many years promoted in the countries the formulation of health research policies. As a result of that promotional effort the First Pan American Conference on Research Policies in Health was held in Caracas in 1982. However, he remarked, owing to the various administrative changes which have taken place in the countries and in the Organization, implementation of the Caracas recommendations has progressed slowly. These recommendations were still valid, and he hoped that with changes that were instituted in the Organization's research policy and strategies for action, and those that were to be introduced after the meeting, a more rapid pace for attaining their fulfillment will be possible.

The Director pointed out that among those fields in which the Committee was asked to pay special attention in Mexico, one still deserves further examination, the field of research in health services. There is genuine concern about the process involved in incorporating technologies of individual care in the health systems in the countries of Latin America and the Caribbean area. This concern derives from the fact that the incorporation of these technologies has been in most cases acritical, appearing to be almost a transplant of what is being done in the central countries. Although such transfer in itself is not wrong, it has had consequences which could be considered tragic. The facts and the data that have been gathered to date through empirical observations and by some partial studies indicate a waste of at least one-third of the resources available in Latin America and the Caribbean area. This is the result of providing services that are unnecessary, inadequate and, sometimes, extraordinarily expensive. In absolute terms, this represents at least 12 billion dollars a year.

It was emphasized that at a time of crisis, when the Region suffers the undesirable consequences of the cutback in resources assigned to the field of health; when essential services are not provided on a regular basis to at least 100 million people in Latin America and the Caribbean area, when those problems can be resolved with the use of inexpensive and available technology, this waste more than a paradox is a social crime. He further added that when this tremendous waste is seen against the 800,000 avoidable deaths with the knowledge and the resources available in this Region, the dimension of this injustice becomes even more distressing.

In the immediate future and in the long run, this Organization will have the responsibility for analyzing this situation and providing Governments with answers to resolve these problems. This also means research.

Dr. Macedo informed the Committee that research activities within PAHO, are being afforded greater importance. He said that a cursory review of programmed activities at Headquarters and Field Offices during 1984 showed that a much greater amount of resources were devoted to research than he had suspected. However, this review also evidenced

trends that not in all cases were relevant to our most pressing needs; and this adds to the importance of the Committee's discussion about priorities.

Within the strategy that was defined and proposed, he indicated, two aspects that have fundamental importance. First, the need for greater internal coordination throughout the Organization, to avoid imbalances and also the possibility of waste in the use of the extraordinarily limited resources that it has to support the development of the research that is needed. Second, the need for identification and mobilization of the resources that exist in the countries so that through cooperative action, which he expects to be progressively broader and deeper as well as more effective, the Organization may create truly cooperative research programs in each of the priority fields that were defined.

It is within these perspectives and because of the aforementioned situation that he wished an expanded and permanent role for the Advisory Committee. He recognized the extraordinary benefit that resulted from previous meetings and the excellence of the Committee's services to the Organization, but stressed that much more was needed. He expressed a desire for the Committee to serve as an instrument in the mobilization and articulation of national resources, exchange of information, evaluation and in the establishment of networks of cooperation for the development of programs that are of interest to all countries, and especially to all peoples. He called for an effective and permanent linkage between the technical programs of the Organization and the Committee, and indicated that two initiatives have been undertaken. The first one, is formal and constitutes the recognition of the fact that the research the Organization promotes and supports, is not limited to the field of medicine, but rather it involves the participation of almost all the disciplines of human knowledge and their application to resolve health problems. Therefore, with the purpose of expressing the breadth and scope of research within the Organization and its member countries, the name of the Committee was changed from Advisory Committee on Medical Research to Advisory Committee on Health Research. The second one, which is more substantive, is the expanded role that the Committee must assume in the Organization's research activities in the future. He urged the Committee to discuss this expanded role and to suggest mechanisms best suited to make possible its implementation.

Finally, the Director referred to the loss two months ago of a beloved coworker who during the many years he worked in this Organization was linked to research activities. He referred to Dr. Juan César García, who dedicated himself to the promotion of scientific activities in the field of health in the Americas. The Director asked all present to raise and devote a minute of silence in memory of Juan César García.

In closing, the Director expressed his gratitude to the Committee and also his confidence in their wisdom and experience to fulfill the demanding task of the days ahead.

2.2 Address by the Chairman of the Global Advisory Committee on Medical Research

Prof. V. Ramalingaswami, in his remarks, said that he was delighted that the Committee had been redesignated PAHO Regional Advisory Committee on Medical Research (ACHR), thereby giving it a wider connotation, and that the Research Program developed by it was focusing on inter-disciplinarity, accessibility of services, innovations and wide applicability.

The overall research program clearly reflected the double burden of developing countries, the existing burden of microbial infections and malnutrition and the evolving burden of microchemical contamination of the environment and of chronic diseases. Prof. Ramalingaswami said that the Global ACMR, the Regional ACMRs, the National Medical Research Councils, and the national institutions constituted a unique network around the world and a great resource for promoting human health. He emphasized that science and technology in the health field are ahead of our capacity to utilize them and the maximum utilization of existing knowledge is of the highest importance. At the same time, however, there are many health problems for which either we do not have effective solutions or what we have are becoming increasingly ineffective. There is clearly a need for new technologies, which are scientifically sound and socially acceptable. Modern biology and biotechnology was cited as offering a great hope for the solution of some of the intractable health problems of the developing countries.

Prof. Ramalingaswami also remarked that the ultimate goal of the research and development effort in the health field were: how we can enlarge the scientific and technological basis for preventive actions, considering the new and powerful tools that modern biology is likely to place in our hands; how we can promote positive health through behavioral and life style changes; how we can secure adequate support systems for health technologies; how we can redress the maldistribution of health resources; how we can subserve overall national developmental goals through international action and how we can build a self-caring and self-reliant society in health.

3. WORKING SESSIONS

3.1 PAHO/WHO Research Policy

3.1.1 Past and Present PAHO Research Policy. Mechanisms of Policy Implementation

Dr. Gabriel Schmuñis (PAHO), stated that PAHO research policy, is derived from the components of the Organization's mission, and the policy framework originated in decisions of its Governing Bodies.

During the sixties PAHO's research policy was: "to assist the Americas in the development of the necessary research resources for solving the most pressing health problems of the people," and its

research program during the decade was a reflection of this policy. The Organization implemented its research program by identifying problems and opportunities emphasizing those that were amenable to being studied by multicountry collaborative efforts and by exploring the possibilities of obtaining support for research projects that meet the standards of excellence required by granting agencies. Since 1961, several resolutions of PAHO Governing Bodies have contributed to further develop this general research policy.

The Plan of Action for the Implementation of Regional Strategies for the attainment of the goal of Health for All by the Year 2000, has several implications for PAHO's research policy. The central purpose of the Plan is to provide access to effective services. This calls for the development of an infrastructure which would assure that services are accessible and effective. Research in this context is primarily utilitarian. It must provide the technology which allows for infrastructural development and effective application of the primary health care strategy.

One of the basic components of PAHO's Mission is the administration of knowledge. Hence, research has much to offer for accomplishing that mission. Today, "PAHO research policy consists in the identification of the gaps in knowledge which impede solutions to national health problems and to cooperate with the countries to carry out in a coordinated manner the research necessary to fill those gaps."

In each of its technical and scientific fields, the basic function of the Organization will be one of promotion and coordination, and the Secretariat is responsible for implementing the research policy. The activities to be pursued have two interrelated purposes: a) to obtain specific research results that are effective, relevant, and applicable to improve programs at country level, and b) to strengthen the research capabilities of the countries themselves to conduct health research. The outcome will be an organized assembly of research activities that are promoted and coordinated by PAHO, in which the Organization also cooperates.

To achieve this end, it is necessary to oversee the implementation of the research policy and the coordination of research activities within the Organization, monitor health research trends throughout the Region and strengthen these same functions at the country level.

Hence, the rationale for the existence of the PAHO Office of Research Coordination. Technical Programs have responsibility for developing activities on specific research matters, including evaluation of technologies. Therefore, their role in research development is of pivotal importance to the Organization.

Their major functions in relation with research are:

- Identifying gaps in the knowledge essential for solving health problems.
- Promoting and supporting the generation of knowledge needed to fill those gaps.
- Identifying national researchers and institutions that could collaborate with the Organization's research efforts and stimulate the formation of operational research networks.
- Compiling, analyzing and disseminating information on research findings.
- Promoting and supporting research training efforts.

On the other hand, the purpose of the Office of Research Coordination is to develop and strengthen the research capabilities of the countries through:

- Promoting the formulation, implementation, and review of national health research policies.
- Developing the research or science and technology units of the ministries of health or related agencies, strengthening their capacity to administer and analyze research activities, cooperating with them in establishing ethical review mechanisms and promoting the training of personnel in the administration of health research.
- Strengthening the capabilities of research institutions in the management of research activities.

It was stressed that it would be impossible for the Organization to be involved in all research activities currently being carried out or to be carried out in the future at the national level. Therefore, the involvement of the Organization should be highly selective and directed at the critical areas in which research is needed to solve cardinal health problems, using primarily national resources.

The presentation also examined the role of the Advisory Committee. It was concluded that the Committee acted as a review body and sometimes as a planning body advising on priorities, strategies and future activities. Although, through the years, the Committee has played a fundamental role in the successful implementation of PAHO's research program, some shortcomings were perceived, including that the wide-range of activities in which PAHO is involved makes it difficult for the membership of the Committee to cover all fields of interest. Some alternatives were presented in relation with the future organization and type of membership of the Committee in order that they can play their dual role more effectively.

3.2 CRITERIA FOR THE ESTABLISHMENT OF PRIORITIES IN HEALTH RESEARCH

3.2.1 Experience in Cuba

Dr. Alina Llop, a Committee member, stressed the importance of defining objectives as one of the basic elements in the definition of the scientific and technological policy. Then, she gave a brief account of the evolution of health research in Cuba.

In 1961, a national health policy was established which was followed by the proliferation of teaching and health research institutions, three of which provided the technical and material foundation for the development of human resources in health research. The decade of the seventies again shows remarkable progress in health research, particularly during the period 1973-76, when Cuba began to organize its subsystem of science and technology within the national health system. Five main principles govern the scientific and technological national policy: 1) planned development of science and technology for social progress; 2) an adequate balance between basic and applied research, emphasizing the latter; 3) transfer and assimilation of technology; 4) rapid introduction of research results into the social practice; and 5) progressive strengthening of the scientific and technological potential with the development of human and material resources.

It is also during this period that the country attempts to prepare its first five-year health research plan on the basis of an analysis of four basic elements. These four basic elements were: the state of health of the population at the time of the analysis; the morbidity and mortality statistics; the accumulated experience of the most prominent and qualified human resources available in the country; and lastly, the modern world trends in health sciences. Seven broad lines or areas were identified: morbidity and mortality, human reproduction, health and environment, clinical trials, health management, population and health and technological development.

In establishing criteria for prioritizing research, stress was put on the importance of an in depth knowledge of the mortality and morbidity profile of the country, since health research should be oriented at transforming the epidemiological-sanitary profile of the population, through the promotion of preventive and curative measures in search of health. The need for the joint participation of the scientific community and the health authorities in the setting of priorities was also highlighted.

Although progress made in the last two decades was remarkable, some deficiencies of the system were noted. Among others, insufficient planning and surveillance of research activities were mentioned.

3.2.2 Experience in Colombia

Dr. Rodrigo Guerrero, another member of the Committee, presented a brief outline of the evolution and present situation of health research priorities in Colombia. First, he stressed the difficulty of making decisions in the absence of a clear, accepted by all, classification of research. Most classifications are ambiguous, with overlapping categories and not related to planning.

The importance of the health manpower and morbidity study conducted in Colombia around 1964 was highlighted. Beginning with that study there have always been excellent working relations between the Ministry of Health of Colombia and the medical schools, and the importance of health research as contributing to health outcomes was firmly established. Despite some sophisticated efforts to develop methods for determining research priorities at the present time they are defined on the basis of three criteria: 1) impact, determined by the importance of a given problem in the structure of morbidity or mortality; 2) viability defined on the one hand as the political definition to tackle a problem and, on the other, as the ability to accept such policy; and 3) feasibility determined by technical and financial points of view.

A few examples of ongoing health research projects carried out by universities in Colombia were mentioned although the main emphasis of the presentation was on the Ministry of Health experience.

The Committee praised the presentations. A discussion then followed on the need to find ways and means for the Committee to accomplish its functions more effectively. In addition, further information was given on the historical development and management of basic and applied health research in Cuba, and on the current situation in Mexico.

3.3 RESEARCH PRIORITIES OF PAHO HEALTH SYSTEMS INFRASTRUCTURE PROGRAM

The Area Director, Dr. Luis Carlos Ochoa, indicated that the Area programs' objective was to improve the coverage and quality of health services. Equity, efficiency and effectiveness were the main criteria being fostered and the primary health care approach, the utilization of appropriate technologies and a high degree of social participation were the strategic means to achieve this objective. The four programs included in this area had six major functions:

- Promotion of policies, strategies, objectives, goals and activities approved by the Governing Bodies.
- Direct advisory and technical cooperation to countries.
- Research and development of technologies, instruments and methodologies.

° Education and training.

° Material, economic and information support.

° Program administration.

It was pointed out that the main problems of research in health system infrastructure were the complexity which arose from the multi-disciplinary, multi-institutional and multisectoral work needed, the lack of explicit, coherent and consistent policies; and the scarce human and financial resources available. In addition, methodologies for studying the subject were not well-defined.

Seven research areas were identified:

° Identification of real health needs.

° Organic and functional structure of the system.

° Relations of the system.

° Systems' management.

° Technology and critical goods.

° Origin, production, and distribution of resources.

° Social participation.

It was further indicated that research projects in all seven areas should: address the solution of priority problems, be an integral part of health services, be evaluative in nature, relate to the teaching-practice concept, favor cooperation among countries, and emphasize the utilization and dissemination of results.

3.3.1 Health Technology Development Program

Research priorities of the Program were presented by Dr. Gloria Coe and Mr. Jorge Peña (PAHO). They stated that the criteria for selection of the research priorities were based on the relevance to policies on public health; strategic importance; collaborative potential; technical excellence; universality; training benefits and the possibility of disseminating the results.

In accordance with these criteria, the areas identified as priorities in the four program components were described as follows:

In essential drugs, research on consumption profiles and practices of dispensing prescription drugs; studies on the pharmaceutical sector in support of the formulation of national drug policies; research on

biopharmacy, including studies of formulations with local ingredients, and studies of bioavailability; research on basic and applied pharmacology in support of groups of excellence in the Region; research on adverse reactions to drugs; research on medicinal plants, and operations research on pharmaceutical supply systems.

In health laboratory and immunology the main research areas are: biotechnology; comparative human and animal microbiology according to prevalence in the affected communities; immunological and other biological reagents and operational research on quality control.

In the area of biologics, research areas are the development of candidate seed for yellow fever vaccine; production and standardization of purified and specific Bothrops snake venom and antivenom, and the evaluation of a whole cell and soluble pertussis vaccine.

In the area of blood transfusion services, research priorities center on patterns of transfusion practices; status of technology for preparation of blood derivatives, and evaluation of their use by physicians in the management of hemorrhage; cost-benefit study of an integrated blood banking service, in a pluralistic system, and development of technologies for production of reagents and equipment.

In the area of medical technology the following are considered as research priorities: analysis of the process of health technology development; development of methodology for evaluating the impact of technological policies; analysis of critical health technologies, regulations of their quality and safety, topics and formulation of options for national and institutional policies; analysis of the technology used in population-based projects and improvement of the cost-effectiveness relationship.

3.3.2 Health Services Delivery Program

Dr. Luis Jorge Osuna (PAHO) at the beginning of his presentation described the study, "Trends and Perspectives of Health Services Research" (HSR), recently carried out in 15 countries of Latin America and the Caribbean area, which has become the planning tool for the Organization's research activities in health services.

Based on the results of the study, a set of criteria and basic elements for the continued development of HSR are proposed in relation to policy formulation, determination of areas of research, strengthening of the administration of HSR and strategies and lines of action.

It was stated that the formulation of HSR policies should be seen not just as the legal expression embodied in the existence of several scientific or service establishments or institutions of higher learning, but as the presence of a research structure with a clear order of priorities and supported by human, technical and financial resources that enable it to engage in research.

The determination of areas or lines of research involved in the utilization of technical and sociopolitical criteria relevant to the particular realities of each country was further emphasized. Three broad categories of analysis should be considered: First, a proper way to classify HSR that will help in the identification of gaps, the framing of criteria for setting the priority areas for study, and the evaluation of the HSR process itself. Second, the systematization of what is known about the possibilities of an experience in the application of methods derived from diverse disciplines such as the social sciences, epidemiology, economics, demography and operational research. Third, the continuing analysis of HSR trends as a means of measuring progress in the generation of knowledge in the health services field both in individual countries and in the Region as a whole and the contribution of studies to satisfy the basic postulates of health policies in relation to the principles of equity, efficiency and effectiveness.

Given the relatively early stage of development of HSR, the program priorities stress more, in the short-term, the organization of an efficient infrastructure for the development of HSR in the countries of the Region, than any particular line which as stated previously, is fundamentally in the hands of each individual country.

3.3.3 Discussion

The Committee praised both reports and a brief account was made of the activities of the subcommittee on transfer of technology set up by the Global ACMR. The Committee members emphasized the importance of research on evaluation and transfer of technology and on pharmaceuticals. In regard to the studies reported on HSR, the remarkable similarity of findings of comparable studies on health services research carried out in Southeast Asia was commented on. It was also noted that the majority of these studies did not appear in the published literature nor were their results apparently used to modify the systems under study or to increase their effectiveness. In addition, there is a need to devise mechanisms at the national and regional level to collate and disseminate the information collected in these studies.

3.3.4 Health Systems Development Program

Dr. Juan Carlos Veronelli (PAHO) stated that the program components include planning, administration, information, formulation and evaluation of projects, and sanitary legislation and economics.

The need for research in the programmatic areas has been reiterated in recent years by many conferences and by expert committees as fundamental for the processes of policy formulation, planning and administration in the health sector. The expression "research in health systems," which tends to be generalized, would imply a wider scope than that of "research in health services."

Policy analysis is the main thrust of the research activities proposed by the program. Multidisciplinary studies as well as publication and dissemination of the results of research projects will be encouraged. Within this broad context, priority research areas will be policy planning, policy implementation and health economics.

3.3.5 Health Manpower Program

The report was presented by Dr. Mario Boyer and Mr. Gerard C. Etienne (PAHO). For establishing research priorities of the program the following criteria were used:

- Potential contribution of the research to the goal of Health for All by the Year 2000.
- Relevance to national health policies.
- Relevance to the regional policies and strategies of the Organization.
- Existence of social demands revolving around problems related to the subject of research.
- Contribution to the solution of negative impacts of the current social, political and economic situation.
- The existence of a theory that supports the research topic and is susceptible to further development.
- The absence or insufficiency of information on the subject, so that the research carried out will not go over well-worn paths but will provide original contributions.

Five major areas emerged that meet the requirements of the definition of priorities based on those criteria. The first area is the health labor market, which reflects a series of demographic and economic characteristics of the health labor force (HLF). This area of research includes the supply and demand dynamics of the HLF, as well as the internal composition of that labor force by professional categories, sex, age, salary status, autonomy, and income.

The second area of research consists of an analysis of the health personnel in the context of inputs and technology. Research in this area is to describe and analyze the relationship between the combination of inputs and technologies and the products obtained. One of the central questions concerning this topic is that of defining the gain in efficiency, productivity and effectiveness that can be achieved by a more adequate combination of these inputs.

The third area is the sociology of the professions. This would involve a systematic study of the historical evolution and institutionalization of those occupational groups that aspire to or have achieved professional status in the health area, as well as the forms of linkage with the subsystem in which they operate and with society at large.

The fourth area contains the educational process. The origins, forms and nature of the training of health personnel, in and through work, which have come to be called teaching-service integration.

Lastly, the fifth area deals with support studies and research. The program would have to identify the sources of data and emphasize the use of established producers in each country, i.e. agencies in charge of the national population census, statistics institutes, research centers of the public sector and universities. The program would, in addition, include the development of research methodologies for the collection, processing and analysis of information.

3.3.6 Discussion

The Committee stressed the value of research in both program areas. In regard to health manpower, it was noted with approval the inclusion of the sociology of the professions as a research area, because of its implications in the organization, planning and delivery of health personnel. It was felt that utilization had been overemphasized and that there was too little emphasis on manpower training and planning. However, it was stated that the latter areas had received prior attention whereas there were serious problems arising from the unemployment and underemployment of trained personnel through inappropriate manpower utilization. The results of PAHO studies revealed that the predicted shortfalls in medical and veterinary professionals for Latin America and the Caribbean area by 1990 were more than met by student enrollments in 1983 in the relevant professional schools.

Nonconventional health personnel, who were known by various names (nursing auxiliaries, health auxiliaries, "promotoras," primary health care workers, etc.), and that required training periods ranging from 3 to 12 months, were specifically mentioned. However, this personnel shared common features of low status and salary, limited career opportunities and high-turnover rates, and an uncertain future. One view was that the system that provided the training was not functionally related to or integrated with the services which utilized the trained personnel. This led to inappropriate training and/or use of health personnel.

During the discussion, it was pointed out that the expanded use of health auxiliaries was an important feature in programs aimed at achieving Health for All by the Year 2000. The discontinuation of training programs for and use of auxiliary health personnel, would have a serious impact on the realization of this goal. Several examples were given where these auxiliary health pesonnel were being used successfully in implementing primary health care.

The Committee also heard of steps that have been taken by Mexico to provide medical students and junior doctors with learning experiences and service roles more relevant to the nation's health goals, modifying the medical undergraduate training programs, and using junior doctors in the practice of family medicine and compulsory service in rural areas.

In regard to predicting health manpower needs, it was observed that such predictions have been usually quite inaccurate in both developing and developed countries. However, of greater concern than the overproduction of health personnel, was the large and increasing number of persons in Latin America and the Caribbean area who remained underserved by any type of health personnel. Another point of concern of the Committee was the lack of continuing education in several fields to update scientists throughout the Region in the most recent scientific and technological advances.

Views were also expressed on the need for further research by social scientists and economists on the social and economic aspects that contribute positively or negatively to the Health Systems Infrastructure Programs as a whole.

3.4 RESEARCH PRIORITIES OF PAHO HEALTH DEVELOPMENT PROGRAMS

Dr. George A.O. Alleyne, Area Director, introduced the subject on priorities in research in the Area against the background of what constitutes the Area and how it functions within the Organization. There are eight technical programs in the Area and their goals have to be compatible with the Organization's goals and mission. Research was one of the essential aspects of the administration of knowledge which was one of the components of PAHO's mission. The priorities for research were examined from the point of view of the kind of research the Organization should initiate and what it should promote throughout the Region. The research by PAHO staff should ideally be multicountry and collaborative in nature. Research to be promoted throughout the Region should satisfy the following criteria:

- Address an important public health problem.
- Be likely to produce an implementable technology.
- Have a high probability of success in a reasonable time.
- Be pertinent to national plans and practices.
- Be balanced in terms of areas addressed.

The ecological variation in the Region would cause various countries to have different programmatic priorities. Within the various program areas, the type of research which should take priority should have the following features:

° Contribute to increasing national expertise in underdeveloped areas of work.

° Be multidisciplinary.

° Utilize indigenous techniques.

° Be linked to the services.

The areas of study which are underserved included epidemiology, the sociology of medicine and the study of the aptness of technologies. All of these considerations on priorities assumed mechanisms for establishing that only research of high technical quality was supported.

3.4.1 Maternal and Child Health Program

Dr. Elsa Moreno (PAHO) in her presentation, stressed that the importance of Maternal and Child Health (MCH) and Family Planning derives from their overall objective, i.e., to satisfy the biological and psychosocial needs of human growth, development and reproductive processes. These processes have to do with at least two-thirds of all human population and with all goals set out (directly or indirectly) for the primary health care (PHC) strategy. She also mentioned that the main problems affecting the normalcy of the population undergoing those processes can be grouped into three categories: First, infections (mainly diarrheal, respiratory and immune-preventable diseases). Second, problems related to nutrition and food consumption (under- and malnutrition). Third, problems related to reproduction and nonregulated fertility (abortion, toxemias, infection, increasing perinatal morbidity and mortality and high frequency of low-birth weight, increasing frequency of pregnancies in adolescents).

In an effort to render the best contribution to the solution of problems and to the betterment of MCH in Latin America and the Caribbean area, PAHO has reorganized the regional program according to epidemiological criteria, by the establishment of five units, i.e., 1) Growth, Development and Reproduction; 2) Immunization; 3) Diarrheal Disease Control; 4) Acute Respiratory Infections; and 5) Perinatal Health through the activities of the Latin American Center for Perinatology and Human Development. All these units are concerned, with health services research leading towards MCH development through: finding the most effective, prompt and costliness solutions to priority problems; seeking of better-quality actions by designing simple and effective evaluation; improving the quality and capacity of health manpower for carrying out developmental activities; and through a better knowledge of the population served to prepare them for an active participation in the care of their own health. From the standpoint of services, minimum and initial targets and hence focal points are: high quality and extended coverages in prenatal care and growth and development follow-up.

Taking the above into consideration, the following priority areas for research have been established: a) identification of mothers, children and families at high risk and of strategies for intervention; b) development of managerial technologies oriented to increasing coverages and quality of health care; c) solution of problems which interfere with equity, efficiency, efficacy and promptness in delivery of health services; d) evaluation of available technologies such as: MCH technologies at the primary health care level of services, family and community; traditional, widely used technologies, and costly medical technologies; e) development of innovative appropriate technologies; f) mechanisms to promote active and most effective community and family participation in MCH care; and g) sociocultural and behavioral factors relevant to maternal and child health care.

3.4.2 Food and Nutrition Program

Dr. Fernando Viteri (PAHO) stated that: a) the food and nutrition problems are persistent and dynamic, demanding new knowledge for their effective solution; b) their solution requires effective joint approaches of disciplines and sectors; c) even when the health sector assumes its role in seeking solutions to the food and nutrition problems its efforts are at least highly inefficient without the participation of other sectors. He also emphasized that research, conceived in a multidisciplinary and multisectoral fashion is fundamental for the contribution of the food and nutrition component to the achievement of the goal of Health for All by the Year 2000.

The following criteria were cited for the establishment of research priorities: 1) research should be aimed at the solution of a relevant problem for the populations in the hemisphere (biological and social consequences); 2) it should focus on fundamental aspects leading to generalizable knowledge; 3) it should innovate, and address relatively unexplored areas; 4) it should be based on solid theory; 5) it should develop and/or evaluate appropriate technologies, including their receptivity and application; 6) it should favor intersectoral and interdisciplinary collaboration, ideally intercountry; and 7) it should promote the development of local expertise and strengthen institutions.

Within these concepts, a set of five priorities for research have been defined:

- Determinants of food practices and the care of groups at nutritional risk.
- Systems to improve the availability and consumption of basic foods and nutrients in socioeconomically underprivileged households.
- Mechanisms to evaluate interventions in the food and nutrition field.

° Research in preventive nutrition.

° Definition of the needs for personnel in food-nutrition-health.

The whole aspect of decision making, understanding attitudes and practices, and facilitation of women's role are key in several of the priorities. In addition, research in the health and nutrition educational components to populations and in the preparation of health and development personnel are also considered fundamental for accomplishing the program's objectives.

3.4.3 Discussion

The Committee expressed its satisfaction for the comprehensive and well-balanced presentation of the Maternal and Child Health Program and also for the areas selected as research priorities.

There was much discussion on the subject of immunization and the declaration at the Bellagio meeting for a universal goal of total child immunization coverage. Trials have begun in Colombia, India and Senegal and preliminary results from Colombia were very encouraging. Factors identified as contributions to that effort were the effective collaboration between donor agencies and national governmental agencies and the effectiveness of the mass media, radio and press, in promoting vaccination. A similar finding of the effectiveness of the mass media was seen in Mexico. The fear that a unilateral strategy of promotion of immunization would detract from successful implementation of and distort the use of resources for primary health care programs appeared to be unfounded.

Research did not include national studies on immune status of populations as priority was afforded to studies related to morbidity and mortality due to measles and neonatal tetanus, and to studies on the factors affecting the use of the services offered, cost-effectiveness of the program, and the problems in the maintenance of the cold chain. However, there was a need, as expressed at the Bellagio meeting, to invest more resources for research and development in the new technologies that are applicable to vaccine preparation.

The Committee expressed views about the importance of "education" on outcomes of prenatal and perinatal intervention programs, including immunization programs, and noted that more information was needed to define what components in "education" were more effective in contributing to the success of the particular intervention.

In discussions of the Food and Nutrition Program, the paucity of "hard science" research projects was noted in the presentation. However, it was pointed out that although not mentioned, much quantitative research has been and is being done at institutions such as INCAP and were reported elesewhere. Similarly, it was stated that there were studies being done in the area of amino acid metabolism in human nutrition, e.g. in Brazil, Chile, Colombia, Costa Rica. It was also

mentioned that studies in the area of individual and social behavior and level of education in promoting practices favorable to optimum human nutrition appeared to be needed.

Although the Maternal and Child Health and Food and Nutrition programs exhibited a holistic approach to problems and possible solutions, it was perceived that much more could be accomplished in this regard.

3.4.4 Tropical Diseases Program

Dr. Francisco López-Antuñano (PAHO) pointed out that the purpose of the program is to provide technical cooperation for developing the national capabilities for the prevention and control of tropical diseases, and to promote applied field research aimed at solving problems that hinder the progress of the prevention and control activities. These activities are mainly directed to vector control as well as prevention and control of specific diseases such as malaria, American trypanosomiasis, schistosomiasis, filariasis, onchocerciasis, leishmaniasis, leprosy and enteric parasitic diseases. He also emphasized that taking into account that the overall objective of the Tropical Diseases Program is to prevent or decrease transmission of these diseases, reversing the trends now occurring in the Region, the program should offer viable solutions to national authorities through research and by making full use of the available resources.

Priority research activities will be those directed toward finding solutions to problems on specific diseases which have been chosen because of: 1) actual public health importance, as shown by the prevalence of these diseases and the burden they impose on health services; 2) the future trend that is envisaged; 3) the existence of technologies or the possibility of the adaptation of the available ones for implementing program activities; 4) the availability in the countries of human and financial resources for carrying out the proposed research and the possibility that personnel could be trained while the studies are being performed; and 5) the existence in the countries of the interest and political commitment for solving the problem. Therefore, knowledge and experience gained through research can be implemented.

The following are the topics that have been identified as research priorities:

- Development and testing of methodologies for the implementation of integrated disease control programs within the primary health care system; the focus will be on: a) vector control in actual or potential areas of high transmission of dengue, malaria and Chagas' disease; b) enteric parasitic diseases; and c) leprosy.

- Studies on the different socioepidemiological variables that influence transmission and affect control of malaria, Chagas' disease, schistosomiasis and enteric parasitic diseases.

- Development and testing of practical techniques for the diagnosis and epidemiological surveillance of malaria, Chagas' disease, schistosomiasis, enteric parasitic diseases and leprosy.

- The evaluation of effective, and easily implemented drug treatment schemes for malaria, Chagas' disease, schistosomiasis, cutaneous leishmaniasis, filariasis, enteric parasitic diseases and leprosy.

3.4.5 Environmental Health Program

Mr. Guillermo Dávila (PAHO) introduced the topic stating that the program is concerned with improving health through improved water and sanitation and protecting health by control of environmental degradation. Previous research efforts and activities were referenced, including the proposed research program which was prepared in light of the medium-term program.

The criteria for establishing research priorities are the contribution that the research could make to a better understanding of problems; reduction of the most important environmentally related diseases; contribution to achieving program objectives and other country priorities; feasibility for carrying out the research and developing countries' research capacity; contribution towards developing the technical, scientific and problem solving self-sufficiency; capacity of the program to respond; and the availability of technical and financial support for the research to be successfully completed.

On the basis of the above criteria four priority areas of research were identified. The first area is provision of water and excreta and sewage disposal. The topics to be addressed in this area will be: a) development and demonstration of appropriate and low-cost technologies for rural and marginal urban areas for improving quality, availability, and reliability of provision of water; improving collection, treatment, and disposal of sewage and excreta; safe reutilization of treated sewage; utilization of renewable energy sources; and development of water sources in a manner which reduces treatment requirements; b) the rehabilitation and optimization of existing water and sewer systems, especially through improved operation and maintenance; c) determination of factors which restrict development of water and sanitation institutions; and d) incorporation of the community in the solution of problems.

The second area is the management of solid wastes, in which research will be focused on: a) development and application of appropriate and low-cost technologies for the construction of sanitary landfills for small communities; community participation in waste collection in marginal urban areas; resource recycling and recovery; and b) research for optimization of collection systems and management of wastes.

The third area of research puts emphasis on the improvement of housing and sanitation, through development and application of appropriate and low-cost technologies.

The last priority area specified was pollution control. In this area emphasis will be placed on the development and application of methodologies and technologies appropriate for the evaluation of the effects of chemical pollution on health; identification, evaluation, and control of the discharge of toxic substances to surface water bodies; identification, evaluation, and control of groundwater; and evaluation of eutrophication of lakes and reservoirs in tropical climates.

3.4.6 Discussion

Appreciation was expressed for the presentation of these reports to the Committee.

The feasibility of extending the concept of networks to establish effective linkages and collaboration, using all resources to assist the Tropical Diseases Program in Latin America was later discussed. The role of the local PAHO offices in achieving this aim was inquired and the participants also queried the rationale of the comparatively narrow perspectives of the Global Special Program for Research and Training in Tropical Diseases (TDR). It was emphasized that the special nature and constraints under which the Global TDR program operated restricted its flexibility to widen its investigations to other pertinent areas. On the other hand, one of the subjects of study of the PAHO program were the enteric parasitic diseases.

Much of the discussion centered on malaria and the progress towards the realization of effective malarial vaccine. It was reported that while concrete steps had been achieved in several areas, e.g. antigen purification and production and development of new diagnostic techniques, there was still a long way to go in realizing an effective vaccine against malaria. It was also remarked that the increase in the prevalence of malaria was not due to a lack of knowledge of control measures, but rather to a relaxation in the application of well-known control measures. However, the tangible interest of major research funding agencies has been expressed in the malaria vaccine field.

In regard to the Environmental Health Program it was stated that while the priorities were expressed at a regional level, it was felt that it would be useful to analyze the priorities in terms of its components, goals and activities. Also, areas of responsibilities should be determined among the various personnel and organizations and there was a need to standardize, where possible, methods and technologies.

In the area of housing, the Committee noted that PAHO involvement will be limited to supporting the ministries of health in their promotional activities so that other sectors concerned with this complex problem will pay special attention to the sanitary aspects of housing and human settlements.

A major concern was the need for health inputs in the evaluation of environmental projects to assess the impact of the project on the overall health of individuals as well as communities. Such a move would be beneficial to both donors, e.g. World Bank, and the country involved. Research support for health inputs in evaluating such project would stimulate implementation of this necessary move. Currently, the program uses the WHO handbook on evaluation.

When the point was raised about what is being done on water fluoridation it was explained that the area of dental health was dealt with under a different program.

3.4.7 Veterinary Public Health Program

Dr. Primo Arámbulo, III (PAHO) introduced the subject stating that the purpose of research conducted as an integral part of the technical cooperation activities is to obtain adequate data and reliable information to solve specific problems that arise in national programs.

The overall objectives of the Program are: to reduce human morbidity and mortality from zoonoses; to contribute to combat malnutrition through increased supply of animal protein; to prevent human food-borne infections and intoxications and reduce economic losses by protecting and assuring the safety of food supplies; to promote human health and welfare in general through the application of appropriate veterinary public health knowledge and skills and the primary health care strategy, including the promotion of intersectoral collaboration between health and agriculture and the optimal use of resources available in these sectors for the promotion of human health.

Some of the significant research contributions of the program which have had the most significant impact on human health and socioeconomic development in Latin America and the Caribbean area were presented, as well as the criteria used for determining research priorities. The latter include the mandates of the Governing Bodies, the recommendations of the Scientific Advisory Committees of PANAFTOSA and CEPANZO, and the operational problems identified in national programs or requiring immediate solutions.

The research areas of the program are zoonoses, foot-and-mouth disease, food protection and comparative medicine and public health.

Research priority on the subjects included in the first area are: a) In Rabies, the development of vaccines; development of simple, rapid and reproducible methods of diagnosis; study of the ecology and dynamics of the canine population; and immunological studies of virus strains using monoclonal antibodies. b) In Hydatidosis, the evaluation of the efficiency of drugs in the treatment of the larval and adult forms, and epidemiological studies. c) In Brucellosis, the evaluation and development of diagnostic tests for humans and animals; the possible interference of foot-and-mouth disease vaccine and immunity conferred by the B. abortus

vaccine; and epidemiological studies. d) In Tuberculosis, the prevalence and identification of strains; study of drug-resistance, and evaluation of sensitivity tests. e) In Leptospirosis, the adaptation of methods for diagnosis, and epidemiological studies on disease prevention. f) In other zoonoses, such as cystecercosis, toxoplasmosis, leishmaniasis, trichinosis, fasciolasis, etc., studies of prevalence and epidemiology; sociocultural implications, and economic losses.

Research priorities of the second area were studies on strain differentiation and antigen structure; development of better methods of vaccine production and disease control; adaptation of newly developed diagnostic methods; studies in genetic engineering; epidemiological characterization and evaluation; and studies on the social and economic consequences of the disease.

In the area of food protection, studies on food microbiology; aspects of contamination of food by diarrhea-producing zoonotic agents such as Campylobacter, Yersinia, Vibrio and E. coli; and the epidemiology of food-borne diseases were stated as priorities for research.

In the area of comparative medicine and public health, priority studies will be on conservation and breeding in captivity of nonhuman primates; behavioral studies; and development of animal models for malaria, hepatitis, and Chagas' disease.

3.4.8 Health of Adults Program

Dr. René González (PAHO) briefly described the Program that includes the following components: 1) chronic diseases, including cancer; 2) mental health, including drug dependence and alcohol abuse; 3) health of the elderly; 4) blindness prevention; 5) accident prevention; and 6) services for the disabled and rehabilitation.

The general objective of the program is to promote the state of health of the adult population and to promote reduction of the incidence and prevalence of chronic diseases, conditions and disabilities that affect it through the Region.

The strategies adopted for achieving these objectives comprise the periodic monitoring of the health situation, the identification of national resources, the promotion of technical cooperation between the countries, the promotion of training and research and the dissemination of technical information.

The following were identified as research priority areas in the various componentes of the Program: a) epidemiologic research; b) studies of psychosocial factors, especially life styles and quality of life, that have an influence on the natural history of diseases; c) clinic-epidemiologic research; d) determination of indicators (for diagnosis, evaluation, risk, etc.); e) operational research; and f) research on evaluation of technologies.

3.4.9 Discussion

In response to questions by the Committee, Dr. Arámbulo, recognized the threat of human infection posed by animal experimentation and stated that the program is careful to follow proper handling techniques as promoted by PAHO. In addition, the Committee was informed that production of animal protein was being promoted since cattle in Latin America is fed grass and not grain; thus, there is no competition with humans for the consumption of grain.

It was also noted that the nonhuman primate center located in Peru uses New World species and that its facilities are available to workers worldwide and animals are shipped throughout the continent.

Although the Committee commented that the Health of Adults Program was too wide in scope to cover effective research programs in all areas, there were certain common features with other programs in their research approach, e.g. the application of risk approach to both Maternal and Child Health and Health of Adult programs.

The importance of smoking as a risk factor was emphasized and it was suggested that PAHO should form links with the newly established Institute of Smoking at Harvard University, in the United States of America.

Another concern was the increasing importance of antibiotic resistance in the Region. The Committee learned that the Fogarty International Center has been covening seminars which will culminate in a major meeting in September 1985. The Committee felt that this subject should be further explored.

3.4.10 Epidemiology Unit

In regard to the Epidemiology Unit, Dr. Ronald St. John (PAHO) stated that the practice of epidemiology is not new at PAHO, since it was established in part to develop international surveillance for major infectious diseases of public health importance. The practice of epidemiology thus expanded within the context of surveillance of infectious diseases, and epidemiology has been identified with infectious diseases surveillance and control programs.

In recent years the practice of epidemiology has evolved, and its methods are now applied in many different areas, such as chronic diseases, cancer and environmental epidemiology. As a result a new Epidemiology Unit was created at PAHO from the merger of the previous Infectious Disease Control Program and Epidemiological Surveillance Unit.

In addition to its many functions in improving the practice of epidemiology in the Region, the Unit has a role for promoting epidemiological research. Based on a continuing analysis of health information, gaps in substantive and methodological knowledge that cannot be resolved through the study of existing data are revealed. These gaps will become the object of priority of epidemiological research activities.

Therefore, the Epidemiology Unit will promote and support research of the following type: a) studies in epidemiological practice, with special emphasis on but not limited to epidemiological surveillance; b) descriptive-analytical studies of the health situation and trends to facilitate a more comprehensive diagnosis of the health situation. These studies will generate better knowledge about the health-disease profiles of communities, subcommunities, or population groups with specific economic and social characteristics, with emphasis on deprived urban and rural communities and areas to and from which people migrate; c) development, adaptation and validation of methods for epidemiological analysis to facilitate the study of the health situation, and the relationships between health problems and economic characteristics. These studies will include an analysis of available and new medical technologies as applied in clinical practice. Simple methods which can be incorporated in the routine operation of the health programs and services for the analysis and systematic evaluation of their coverage, effectiveness, and efficiency will be promoted; and d) studies on the natural history of viral diseases which are important in public health, the identification of their risk factors, and their pathophysiology, with the objective of developing appropriate strategies for diagnosis and intervention.

3.4.11 Discussion

In response to questions it was explained that the Unit does not directly conduct research but promotes and facilitates research activities.

There was criticism of the traditional collection of vital statistics where the data were incomplete, interpretations inaccurate, and results were late and usually not available outside the central collecting point. The cost-effectiveness of this system was questioned. In reply, it was noted that a surprising amount of information collected was of a sufficient reliability to base some decisions. However, improvements in the quality and usefulness of data could be achieved by disaggregation of data to reveal information on specific groups, dissemination of results in a timely manner, and construction of other methods of surveillance and data collection.

The Committee discussed in detail the training of epidemiologists and there was consensus that epidemiology was a discipline in its own right with its own scientific basis and methodology. The content and time course of training in epidemiology may be tailored to meet varying demands without losing sight of the need for the countries in the Region to provide adequate training for fully qualified epidemiologists. In this regard, national institutions require full support. However, it may be necessary to send to other places small numbers of epidemiologists for further training.

3.5 ASSESSMENT OF SPECIAL PROGRAMS AND SPECIFIC RESEARCH TOPICS

3.5.1 Research Priorities of the Emergency Preparedness and Disaster Relief Program

Dr. José Luis Zeballos (PAHO) stated that in relation with Emergency Preparedness and Disaster Relief Program, some of the main factors contributing to the present situation were the following. First, the need for reliable scientific knowledge on the subject, is generally not perceived. Traditional clichés on explosive outbreaks of communicable diseases, mass hunger, social unrest and mass casualties being unattended for days by lack of medical supplies and personnel, are still widely accepted by the public, including health professionals. Second, that proper planning of research projects on health situations following catastrophes is complicated by the unpredictable nature of the natural events. Third, that most investigators lack previous field experience. Stability and continuity in this line of research are difficult to achieve due to the relative scarcity of major disasters and the fluctuating funding sources.

Taking into account those constraints, the following priorities for research are identified by the Program: a) analysis of risk factors involved in the epidemiology of disasters; b) the need for determining the type of trauma and injuries caused by disasters and the appropriate relief supplies; c) management of casualties: the way of handling the influx of patients by hospitals, applicability of field hospitals, operational research to determine priorities in medical supplies; and d) disease control and sanitation and the effectiveness of programs associated with the influx of international relief.

The need to reinforce the intercountry cooperation, especially among those countries exposed to the same type of disaster, was also highlighted.

3.5.2 Discussion

It was noted that the program focused on natural disasters and man-made disasters but did not cover vehicular accidents or disasters related to nuclear materials which were dealt with by other programs, agencies or organizations. Also, endemic disaster conditions, with periodic exacerbations, such as drought areas in northeastern Brazil and in Peru did not come under the program. In the case of northeastern Brazil, it was commented that the causes of the drought conditions are multiple and complex as are the effects of these conditions on the inhabitants and their reactions. Despite substantial investments and efforts in the decade the results are minimal. There are new efforts to motivate researchers in universities to study the problems of semiarid areas.

An area of common concern to all involved in disaster relief was the inadequacy of methods to measure the magnitude of the event. A more recent approach was to develop vulnerability measures based on a theoretical model and this will be tried soon in Mexico.

Attention was drawn to the application of early warning systems and modern weather forecasting methods, as well as satellite communication systems in the area of disaster preparedness and relief. PAHO has entered an arrangement with NASA for satellite communication between PAHO headquarters office and Antigua and Perú.

3.5.3 Research Activities and Priorities of the Institute of Nutrition of Central America and Panama (INCAP)

Dr. Luis O. Angel, Director of INCAP, said that the current INCAP's research program was mainly directed to address the following areas: health and nutrition; agricultural and food sciences; development and evaluation of intervention with nutritional impact; dissemination and exchange of scientific-technical information; and training of research personnel.

The criteria for the establishment of research priorities in health and nutrition and in food science and technology are: 1) magnitude and consequences of existing problems to be investigated in the countries of the subregion; 2) search for adequate solutions considering their feasibility of application in the countries of the subregion; 3) technical and financial capacity of the Institute to carry out such research; 4) identification of specific researchable problems by the countries themselves; and 5) PAHO/WHO research priorities and policies.

Three main areas of research were identified.

In the health and nutrition area, the following topics were considered as deserving exploration: food and nutrition within the strategy of primary care; nutrition-infection; research on health and food-nutrition education; food and nutrition surveillance; other diseases related with nutrition; and nutritive requirements.

In the area of food science and technology the main thrust will be research in basic foods; new sources; postharvest effect; and industrial and agricultural byproducts.

In the area of evaluation of interventions, the topics to be studied are: impact of agricultural policies on nutritional status; evaluation of the nutritional effects of changes in salaries and food prices; and the evaluation of interventions in the economic field in relation with health and nutrition.

3.5.4 Discussion

The Committee was pleased to note that the Center has overcome a period of difficulties and commended, Dr. Angel for the thrust given to INCAP's activities. It also took note that INCAP's budget for 1984 was US$3.5 million with a staff complement of 201, including 46 professionals of several disciplines. It was explained that there were graduate courses outside of those related to the United Nations University program and that INCAP had extended its role to other areas in Latin America and the

Caribbean area. In regard to the nutritional status of Latin American countries, only Costa Rica, which had a surveillance system, had recent results. There appeared to be a need to obtain data on nutritional status especially since the onset of economic downturn that affected all countries.

Discussion then focused on food supplement programs and it was stated that there were very few evaluations of such programs. The meeting stressed the multidisciplinary approach that was necessary to understand and propose solutions to many nutrition problems that continue to plague Latin America.

3.5.5 Social Epidemiology of Malaria - The Effect of Migration and other variables

The presentation was made by Doctors Francisco López-Antuñano (PAHO), Patricia Rosenfield (WHO), José Nájera Morrondo (WHO) and Arturo Romero (PAHO). It was pointed out that the field of social epidemiology of malaria should include the study of phenomena in society which influence the transmission and control of malaria, the impact of the disease on society and the collective response to the disease.

Appropriate knowledge on this field must be included in the process of designing and implementing malaria control plans. A program for acquiring and improving such knowledge should be developed by those responsible for malaria control, who must be part of the health planning team. Whether the team should include social science specialists as full members or as consultants, or whether the malariologists should receive adequate training in social sciences methodologies, will depend on the complexity of the social problems involved and the magnitude of their impact, expected or observed, on the epidemiology and control of malaria. In addition, appropriate methodologies should be developed for studies on social epidemiology and its application to public health.

Migration is a dependent variable within the social processes which give it significance, and its effects, must be interpreted focusing on a very broad perspective to facilitate its understanding. Mobility, circulation and migration of human populations depends to a large extent on the forms or modes of production, and can modify the epidemiological profile of diseases transmitted by vectors such as malaria. The in depth identification of the characteristics of migration will allow us to better understand its relationship to malaria as a social problem. In order to design and apply appropriate, prevention and control methodologies, it is important to understand the changes that occur in the working and living conditions of migrants in concrete situations.

The program of comparative research on migration and malaria is under way in the Region, and guidelines have been developed for the preparation of research protocols. The objective of this study is to determine the relation that exists between the forms of production, migration in the rural sector, and the changes in the epidemiological

profile of malaria. Belize, Colombia, Costa Rica, the Dominican Republic, Guatemala, Haiti, Mexico, Nicaragua, and Panama have indicated their interest in participating in this type of study.

Preliminary surveys conducted to date have made it possible to understand better the living, working, and health conditions of the population and could serve as a basis for programming activities and for implementing the strategy of primary health care in relation to the needs.

3.5.6 Discussion

This presentation elicited much discussion especially on the role and impact of studies on social and economic aspects associated with transmission and control of malaria. Stress was placed on the multidisciplinary approach in trying to define problems and offer relevant solutions. Thus social epidemiology was seen as combining methods from both social sciences and epidemiology. Several examples of the usefulness of this approach were given. The important role of sociology, anthropology, economics, etc., in defining the problems and indicating possible solutions was recognized. Nevertheless, caution was expressed about the careful application of tried methods of control in those studies.

3.6 SCIENTIFIC COOPERATION IN HEALTH RESEARCH

The topic of Scientific Cooperation among Developing Countries of the Region (SCDC)*/ was introduced by Dr. José R. Teruel (PAHO), who reported on the paper prepared by the Special Working Group on Technical Cooperation among Developing Countries, which identified priority areas of technical cooperation. He stated that to achieve the development, evaluation and adaptation of health technologies, it is indispensable for the countries to plan their scientific development taking into account their real and potential resources. If this effort is to be effective, it is also necessary to utilize strategies and mechanisms that favor joint scientific production, testing of scientific findings and the accelerated exchange of information of such findings among countries.

The presentation provided the basis for the identification of the possible principal strategies aimed at intensifying the process of scientific cooperation among countries. As the economic situation gets worse, the need to implement them is more urgent than ever.

3.6.1 Discussion

From the discussion that ensued it was obvious that the points raised were of great interest to the Committee. It was also pointed out that the Organization should be actively involved in the development of existing national councils of science and technology, and the promotion of new ones where they do not exist.

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*/ The expression SCDC was utilized as an analogy to the well-known Technical Cooperation among Developing Countries (TCDC).

4. EXECUTIVE SESSION

4.1 Report of the XXV Session of the Global ACMR

In the absence of the Chairman of the Global Advisory Committee on Medical Research (ACMR), Dr. M. Abdelmoumene (WHO) reported on the 1983 meeting.

He stated that the Director General stressed that countries must develop their health research to meet the needs of their health strategy. One of the main pillars of this strategy was the use of appropriate technology. Such technology must be sound scientifically, adaptable to local needs, acceptable to those who apply it and to those for whom it was used, and it must be maintained at a cost which the country concerned could afford. A strong plea was also made for the development of a strategy for health research to support the strategy for Health for All.

In relation to the reports of the Chairmen of the six Regional Advisory Committees on Medical Research, a number of priorities were mentioned such as: research on appropriate technology, training in research methodology and research management, health services research, acute respiratory diseases, research in behavioral sciences and mental health, and research in health manpower development.

The topic of research in health manpower development was discussed and it was agreed that it must be seen as an integral part of health systems research. The lack of a health manpower policy, of understanding of and demand for such research, of research workers and institutions, of resources and a dearth of means of communication among interested people, were some of the constraints that impeded development on health manpower research. This is an area of tremendous importance, particularly in the immediate future, for facilitating progress in the developing countries toward Health for All.

In the field of occupational health, it was mentioned that a program of this breadth and magnitude must be multidisciplinary and should involve the utilization of expertise available within the World Health Organization and in other organizations. The ACMR supported a recommendation that a technical advisory group in research on occupational health be established.

Concerning ongoing and planned research on acute respiratory infections, the first priority was to test a standard plan for case management and health education within the comprehensive health care system and measure its efectiveness in reducing child mortality. The second priority was the execution of clinical and etiological studies to provide a clinical description of acute respiratory infections in children requiring health services. The Committee considered it realistic to start the program with research directed at finding the most appropriate control technology available and to identify the sociological and managerial requirements for its application in the developing countries.

A progress report was presented concerning guidelines for the use of animals in biomedical research.

With respect to the coordination between the Global and Regional Committees, the Global ACMR felt that it was important to ensure links between them, to improve the cohesion of the Organization's research activities. As a consequence of the decentralization of research, regional research activities have assumed increasing importance. Thus valuable experience had already been accumulated at regional and country levels and it would therefore be valuable to encourage interregional communication and joint activities.

4.2 Recommendations of the XXII Meeting and Actions Taken

The subject was introduced by Mr. Jorge Ortiz (PAHO). Specific recommendations were given in the following areas: health services research, migration and health, management of research, WHO Collaborating Centers, acute respiratory diseases, mental health, and environmental health. Most of the recommendations were implemented.

In regard to the recommendation on health services research, a complete report on the subject was presented at the meeting. In addition, seven studies have been carried out on the role of drugs in the delivery of health services with special emphasis on the use, distribution and socioeconomic impact.

Research in migration and malaria has been promoted. Guidelines for protocols have been prepared and financial support has been provided to carry out studies in three countries.

In relation to the recommended training in research management, two national seminars were held (Argentina and Perú). In addition, a regional seminar was also held in Perú by the Special Program of Research and Training on Tropical Diseases. A methodology for diagnosis of the situation on management of research at the institutional level was developed by the National Research Council, Brazil (CNPq) with the financial support of PAHO.

Efforts continued to promote studies on acute respiratory infections in children. Funds were assigned for clinical-etiological studies in Argentina, Perú and Uruguay and for a comparative study of strategies for the management of cases in Brazil. The projects under way in Brazil and Panamá continued to receive PAHO technical advisory services, as well as materials.

The Organization continued its efforts in the field of mental health ensuring that sufficient attention be paid to the behavior of the adolescent mother.

In relation to the Environmental Health Program, all components of the program incorporated research related objectives and activities. One technical staff was designated as focal point to coordinate those activities.

4.3 Discussion

The Committee took note of the activities of the Global ACMR and the initiatives that were being carried out. It also accepted the report on the actions taken concerning the recommendations made at the XXII Meeting.

In regard of the current Meeting, the Secretary of the Committee stressed the importance of the role of the Committee in establishing the future direction of the research being promoted, coordinated and/or conducted by the Organization and hoped that presentations made by the PAHO programs had given the members of the Committee an accurate impression of those activities. The priorities presented should serve as the background against which the research activities resulting from these priorities would be monitored by the ACHR in the future.

The following points emerged from the discussion on the Secretary's comments about the scope of the meeting and the work and role of the ACHR. The Committee agreed that priority selection is an important feature for the implementation of PAHO research policy. Moreover, technical programs presented thorough background reports that showed the wide-range of activities covered by the research planned, a fact noted with interest by the Committee.

In the light of the broader scope of the research needed to address the health problems of the countries of the Region, a reflection of which was the change in the name of the Committee, the tremendous current development of science and technology, and the reexamination that is occurring in the role of the Global ACMR, the Committee considered that there was an urgent need to restructure the organization and the membership of the ACHR, so that more diversified types of expertise be available to provide advice. Moreover, a greater involvement of Committee members in the Organization's research program was deemed advisable. It was suggested that as an interim measure to achieve this involvement, reports on research activities published by the programs throughout the year be circulated among the members. It was also indicated that the format of future meetings be modified by reducing the number of subjects and allowing more time for discussion about issues requiring an in depth analysis. In the future, the Committee also expects to be informed about financial resources devoted to research by PAHO.

The Committee also expressed concern about the problems occurring in some countries in relation to the logistic needs to support research activities.

The issue of utilizing networking as a mechanism for collaborative research was extensively discussed. The Committee was strongly supportive of this mechanism, but wished to give great emphasis not only to this mechanism but also to all other suitable ones to promote personal interaction and information exchange among investigators throughout the Region. All members of the Committee agreed that science and science in health have an international language which cuts across political and ideological boundaries.

A brief summary on these issues and the suggestion that the next meeting of the Committee be held in Cuba in 1985 were presented by the Chairman, Dr. Frederick C. Robbins to the Director of PAHO. Dr. Carlyle Guerra de Macedo, in turn expressed to the Committee his appreciation and gratitute for the heavy task they had accomplished during the current meeting. He also pointed out that the recommendations of the Committee would undoubtedly help the future activities of the Organization.

The meeting adjourned.

5. RECOMMENDATIONS OF THE TWENTY-THIRD MEETING OF THE PAHO ADVISORY COMMITTEE ON HEALTH RESEARCH

The ACHR made the following recommendations, based on the review of the reports received and the issues discussed during the Working and Executive Sessions:

5.1 Restructuring of the ACHR

The Committee recommended:

To establish a subcommittee on restructuring the ACHR with the following terms of reference:

° To examine the present structure and functions of ACHR and to make recommendations for its future design seeking to maximize its effectiveness.

° In approaching this task the subcommittee should consider:

- The wider scope of research needed to address the health problems of the countries of the Region.

- The extraordinary changes that are occurring in science and technology.

- The changes occurring in the Global ACMR.

- The activities of other governmental and nongovernmental organizations relevant to the interests of the ACHR and how it can most effectively relate to them.

- The peculiar needs of the Region.

The Subcommittee would be composed by: Dr. Guillermo Soberón Acevedo as Chairman, and Dr. Ceferino Sánchez, Dr. Roberto Caldeyro-Barcia, Dr. Rodrigo Guerrero, and Dr. David Hamburg. A draft report should be submitted within six months, to be discussed and decided upon at the next annual meeting of the ACHR.

5.2 Logistic support for research activities at the country level

The Committee recommended:

To convene a study group on logistic support for research activities that should:

a) Identify those factors that inhibit the pursuit of research, such as information flow.

b) Propose methods and/or solutions to overcome barriers as identified above.

This group would be composed by: Dr. Raimundo Villegas as Chairman, and Dr. José Rodríguez Coura and Dr. Rodrigo Zeledón. A report should be presented at the next annual meeting of the ACHR.

5.3 Reports and information requirements of the Committee

The Committee recommended that the Organization:

a) Prepare and present to the Committee a report of the financial resources assigned to research by each program every year.

b) Prepare and present to the Committee a detailed quantitative and qualitative report on the state of research activities periodically.

c) Systematically provide the members of the Committee with information on the work being carried out throughout the year by the scientific working groups convened by each program of the Organization.

5.4 Formation of networks

The Committee recommended:

To encourage the formation of networks as a means not only of guaranteeing collaborative work by national investigators, but also as a mechanism for the dissemination of information and application of research results. These should be emphasized as part of each program research strategy.

5.5 Pharmaceuticals

The Committee recommended:

Special emphasis should be placed on research on the utilization of pharmaceuticals, including:

a) Prescription and consumption practices.

b) Community attitudes.

c) National policy formulation.

d) Quality control.

e) System of drug delivery to the population.

f) Adverse reactions to drugs.

The Committee also felt that this topic might be an appropriate one for a major conference.

5.6 Technology transfer and technology assessment

The Committee recommended:

That research in technology transfer and technology assessment be fostered and encouraged, given the enormous investments being made by countries of the Region in the acquisition of health technologies.

5.7 Health Services Research

The Committee recommended:

That mechanisms be devised at the national and regional levels to collate and disseminate information collected in the studies on health services research, and establish whether or not the results of such studies are utilized.

5.8 Auxiliary Health Personnel

The Committee recommended:

That PAHO should foster and stimulate research to clarify the role of auxiliary health personnel. Since such personnel can be helpful in making primary health care more widely available, it is necessary to determine why so many of these efforts have failed and to clarify the conditions under which such health workers can make a useful long-term contribution.

5.9 Continuing Education

The Committee recommended:

That all PAHO programs develop continuing education activities to update scientists throughout the Region in the most recent scientific and technological advances.

5.10 Health Education

The Committee recommended:

That PAHO should foster and stimulate research to strengthen:

a) Education for health.

b) Education for women.

This effort involves education of the public on a large scale and community organization for health. Such research can focus on ways to overcome obstacles to the implementation of interventions known to be effective, e.g., immunizations. It should include educational functions within the health systems as well as the mass media and the schools.

5.11 Maternal and Child Health Care

The Committee recommended:

That PAHO conduct a multidisciplinary study of childhood mortality in the Americas.

Such study would enable the Region to obtain follow-up information on a whole range of health problems which were reported on in Puffer and Serrano's "Patterns of Mortality in Childhood (1973)."

Such information is vital to the rational planning of strategies for health delivery and health research, and would provide an assessment of measures taken in the last decade.

Such study would involve several current PAHO programs, such as Maternal and Child Health, Food and Nutrition, Health Systems Delivery, Epidemiology, etc., and would promote intercountry cooperation in all these areas.

5.12 Environmental Health

The Committee recommended:

a) That in order to define an operational strategy for the Environmental Health Program, an analysis of research priorities take effect in relation to working components, such as promotion, cooperation, coordination and research execution, considering the specific responsibilities of the different levels: regional, centers and country.

b) That in outlining a network for the Collaborating Centers in Environmental Health, special consideration be given to research.

5.13 Scientific Cooperation among Countries

The Committee recommended:

That PAHO should stimulate and facilitate technological and scientific cooperation among countries of the Region, mainly by the networking mechanism. This should be done taking into consideration the scientific and political framework necessary for such a cooperation.

5.14 Relations with National Research Councils

The Committee recommended:

That PAHO foster its own relationship of technical cooperation with the national councils of science and technology or analogous bodies of the Region.

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION

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TWENTY-THIRD MEETING OF THE ADVISORY COMMITTEE ON HEALTH RESEARCH

4-7 September 1984

Washington, D.C.

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Washington, D.C.
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AGENDA

TWENTY-THIRD MEETING OF THE ADVISORY COMMITTEE
ON HEALTH RESEARCH

4-7 September 1984

Washington, D.C.

AGENDA

Tuesday, 4 September	Private Session
8:30 am - 9:00 am	Election of Officers
	Inaugural Session
9:00 am - 9:20 am	Remarks by the Director of PAHO Dr. Carlyle Guerra de Macedo
9:20 am - 9:30 am	Remarks by Chairman, Global ACMR Dr. V. Ramalingaswami
	Session I. PAHO/WHO Research Policy
9:30 am - 9:50 am	1. Past and Present PAHO Research Policies. Mechanisms for Policy Implementation. Dr. Gabriel A. Schmuñis
9:50 am - 10:10 am	2. Criteria for the Establishment of Priorities in Health Research: Experience in Cuba. Dra. Alina Llop
10:10 am - 10:30 am	3. Criteria for the Establishment of Priorities in Health Research: Experience in Colombia. Dr. Rodrigo Guerrero
10:30 am - 10:45 am	Coffee
10:45 pm - 12:30 pm	Discussion
12:30 pm - 2:00 pm	Lunch

Tuesday, 4 September (cont.)

	Session II. Research Priorities of PAHO Health Systems Infrastructure.
2:00 pm - 2:10 pm	4. Introduction Dr. Luis Carlos Ochoa
2:10 pm - 2:30 pm	5. Health Technology Development Program. Dr. Ramiro Martínez Silva
2:30 pm - 2:50 pm	6. Health Services Delivery Program. Dr. Luis Jorge Osuna
2:50 pm - 3:45 pm	Discussion
3:45 pm - 4:00 pm	Coffee
4:00 pm - 4:20 pm	7. Health Systems Development Program. Dr. Juan Carlos Veronelli
4:20 pm - 4:40 pm	8. Health Manpower Program. Dr. Mario Boyer
4:40 pm - 5:30 pm	Discussion
5:30 pm	Recess
Wednesday, 5 September	Session III. Research Priorities of PAHO Health Program Development.
8:30 am - 8:40 am	9. Introduction Dr. George A.O. Alleyne
8:40 am - 9:00 am	10. Maternal and Child Health Program. Dra. Elsa Moreno
9:00 am - 9:20 am	11. Food and Nutrition Program. Dr. Fernando Viteri
9:20 am - 10:45 am	Discussion
10:45 am - 11:00 am	Coffee
11:00 am - 11:20 am	12. Tropical Diseases Program. Dr. Francisco López Antuñano

Wednesday, 5 September (cont.)

11:20 am - 11:40 am	13. Environmental Health Program. Mr. Guillermo Dávila
11:40 am - 12:30 pm	Discussion
12:30 pm - 2:00 pm	Lunch
2:00 pm - 2:20 pm	14. Veterinary Public Health Program. Dr. Primo Arámbulo, III
2:20 pm - 2:40 pm	15. Health of Adults Program. Dr. René González
2:40 pm - 3:45 pm	Discussion
3:45 pm - 4:00 pm	Coffee
4:00 pm - 4:20 pm	16. Epidemiology Unit. Dr. Ronald St. John
4:20 pm - 5:30 pm	Discussion
5:30 pm	Recess

Thursday, 6 September

Session IV. Assessment of Specific Research Topics and Special Programs.

8:30 am - 8:50 am	17. Research Priorities of the Emergency Preparedness and Disaster Relief Program. Dr. José Luis Zeballos
8:50 am - 9:30 am	Discussion
9:30 am - 10:00 am	18. Research Activities and Priorities of the Institute of Nutrition of Central America and Panamá (INCAP). Dr. Luis O. Angel
10:00 am - 10:45 am	Discussion
10:45 am - 11:00 am	Coffee

Thursday, 6 September (cont.)

11:00 am - 11:40 am	19. Social Epidemiology of Malaria: The Effect of Migration and other Variables. A PAHO Interprogram and Intercountry Comparative Study. Dr. Francisco López Antuñano Dr. Arturo Romero Dr. Patricia Rosenfield Dr. José Nájera Morrondo
11:40 am - 12:30 pm	Discussion
12:30 pm - 2:00 pm	Lunch
	Session V. Scientific Cooperation in Health Research.
2:00 pm - 2:30 pm	20. Scientific Cooperation in Health Research among Countries of the Region. Dr. José R. Teruel
2:30 pm - 3:30 pm	Discussion
3:30 pm - 4:00 pm	Coffee
	Session VI. Executive Session.
4:00 pm - 4:20 pm	21. Report of the 25th Session of the Global ACMR. Dr. V. Ramalingaswami
4:20 pm - 4:30 pm	22. Recommendations of the 22nd Session of the Regional ACMR and Action Taken. Mr. Jorge Ortiz
4:30 pm - 5:30 pm	Discussion and recommendations
5:30 pm	Recess

Friday, 7 September

8:30 am - 10:45 am	Preparation of final report.
10:45 am - 11:00 am	Coffee
11:00 am - 12:30 pm	Preparation of final report (continued).
12:30 pm - 2:00 pm	Lunch.
2:00 pm - 3:45 pm	Preparation of final report (continued).
3:45 pm - 4:00 pm	Coffee
4:00 pm - 5:20 pm	Review and approval of final report.
5:20 pm - 5:30 pm	Closing remarks, by Dr. Carlyle Guerra de Macedo, Director
5:30 pm	Recess

ACHR/23-b

TWENTY-THIRD MEETING OF THE ADVISORY COMMITTEE ON HEALTH RESEARCH
VIGESIMA TERCERA REUNION DEL COMITE ASESOR DE INVESTIGACIONES EN SALUD

4-7 September 1984
4-7 de septiembre de 1984

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LISTA DE PARTICIPANTES

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