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PAN AMERICAN
HEALTH
ORGANIZATION

XXVII Meeting

regional committee

WORLD
HEALTH
ORGANIZATION

XXXII Meeting



INDEXED

Washington, D.C.
September-October 1980

Provisional Agenda Item 21

CD27/30, Corrig. (Eng.)
25 August 1980
ENGLISH ONLY

REPORT OF THE PAHO ADVISORY COMMITTEE ON MEDICAL RESEARCH

Corrigendum

On page 6, third paragraph, between the fifth and sixth lines insert the following:

"country. This stagnation correlated with social unrest (civil war), sub-"

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PAHO ADVISORY COMMITTEE ON MEDICAL RESEARCH

Report to the Director

1980

**PAN AMERICAN HEALTH
ORGANIZATION
ADVISORY COMMITTEE
ON MEDICAL RESEARCH**

**NINETEENTH MEETING
9-13 JUNE 1980
SAN JOSE, COSTA RICA**

REPORT TO THE DIRECTOR

Ref. HRC 19/1
30 June 1980

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

Washington, D.C.

Pan American Health Organization

XIX MEETING OF THE
PAHO ADVISORY COMMITTEE ON MEDICAL RESEARCH

San Jose, Costa Rica
9-13 June 1980

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NINETEENTH MEETING OF THE
PAHO ADVISORY COMMITTEE ON MEDICAL RESEARCH

Report to the Director
1980

INAUGURAL SESSION

Dr. Joaquin Cravioto, President of the Advisory Committee on Medical Research (ACMR), opened the XIX Annual Meeting of the Committee and introduced Dr. Hector Acuña, Director of the Pan American Health Organization. The Director indicated that the selection of Costa Rica to host the meeting has been in recognition for the great support given by that country to scientific research in health as an instrument for realizing national goals and as the best solution to its problems. He mentioned the structural and legal changes that had taken place in Costa Rica lately, which could permit Costa Rica to reach the goal of health for All by the year 2000, before other Latin American countries.

He introduced the Acting President of the Republic to the Committee and referred to its structure, function and the policy of selection of the Members. Following, he commented briefly on the agenda, thanked those Members that were retiring this year, and welcomed the new Members: Dr. Carlos Celso de Amaral e Silva from Brazil, Dr. Luis Vargas from Chile, and Dr. David Hamburg from the USA.

He indicated that this year was the end of the term of Dr. Joaquin Cravioto as President of the ACMR and that he would be succeeded by Dr. George Alleyne. He thanked Dr. Cravioto and wished Dr. Alleyne a successful term.

Finally, he thanked the Government of Costa Rica and particularly the Instituto de Investigaciones y Enseñanza en Nutrición y Salud (INCIENSA) for all the facilities given to host the meeting.

Dr. S. Bergstrom, Chairman of the global ACMR, spoke briefly and brought greetings from Dr. H. Malher, Director General of WHO.

Representing the Government of Costa Rica, Dr. Carmelo Calvosa, Minister of Health, addressed the Committee, indicating his satisfaction that

Costa Rica had been selected to host the XIX Meeting of the ACRM and that a Member of the Committee was a distinguished Costarican professional.

Dr. Calvosa indicated that it was not an easy task for a Committee to put science at the service of the countries of the Americas where problems were so different and so great.

The Minister also indicated the need to develop the research potential of the countries of the Region and he commented that the level of health reached in Costa Rica forced the Government to maintain it and increase it. This implied the utilization of all available resources and they were counting on the support and the guidance of committees such as the ACRM.

Finally, Dr. Calvosa wished the Members a successful meeting.

Dr. Rodrigo Altman, First Vice-President of the Republic of Costa Rica, and President ad interim, addressed the Committee and expressed the satisfaction of the Government of the country of Costa Rica at being host to the PAHO/ACMR. He referred to the benefits derived from medical research in the improvement of the health conditions of Costa Rica and the meeting success.

He declared the meeting open.

SESSION I

1. Malnutrition, mental development, behavior and learning

Dr. Cravioto presented his work in this area. He said that the strategies research workers has used to study the consequences of malnutrition on mental development, behavior and learning had been derived from their conceptualization of human malnutrition. Workers who considered that malnutrition was an acute disturbance rather well delimited in time, had conducted studies which endeavoured to quantify the contribution of malnutrition as a chronic process that might or might not be acutely exacerbated both by physiologic conditions and the social circumstances of the individual at risk. These workers had attempted to correlate sequelae along a time axis.

With the focus of attention on the young individuals because of their high vulnerability three models on approaches had been used in trying to

clarify the causal factors and the consequences, both short and long term, of protein-energy malnutrition: 1) the deprivation model; 2) the intervention model; and 3) the ecological or natural history model.

The ecological model used over a sufficiently long period of time made it possible to identify age-specific risk conditions, to relate causes and consequences at different periods or stages of development of the individual, and to set up scales of biological and social time. Since it also permitted the selection by the research worker of levels of macro or micro-environment in order to ascertain the interaction of biologic and social variables, it was decided to employ that model with the interrelations between nutrition, health and social factors over time in one and the same population.

Longitudinal data on the effects of macro and micro-environmental variables on the performance levels of sensory-motor development, motor abilities (coordination, strength, agility and velocity, flexibility, and equilibrium), intersensory organization related to prerequisites for learning to read and write, perceptual-motor decoding and audio-vocal encoding, clearly showed that the environment in which infants and young children at risk of malnutrition lived was highly negative for mental development and learning. Children raised in this milieu had a high probability of exhibiting poor performance in all the aspects studied. The presence of a super-imposed episode of severe malnutrition increased the chances of scoring at values even lower. With the exception of auditory-visual intersensory integration the lower performance levels of the survivors of severe malnutrition of all other tests persisted when these children were matched with children of the same birth cohort for income per capit, main source of family income, percentage of total family expenditures devoted to food procurement, sanitary facilities of the home, and total score of home stimulation. The difference in auditory-visual competence between survivors of severe malnutrition disappeared when the survivors were matched with children having the same low scores of home stimulation.

With the longitudinal data available it is now becoming possible to tease out the specific contributions and interactions to the cognitive

development of children of the lack of nutrients, the inadequate stimulation, the diminution of experiential opportunities, as well as other health and social factors.

Dr. Cravioto was congratulated on his presentation. Dr. Acuña raised the issue of mental health and neuropsychiatric research. He was concerned that note should be taken of possible areas of evaluation in this field. There was also concern that there was a decline in nutrition research even within the Americas and it appeared that mental health appeared to have a low priority for research. In this context Dr. Acuña pointed out that the Global ACMR had established a Subcommittee on Mental Health and Dr. Hamburg was a member of that subcommittee.

2. Research activities of the Latin American Center of Perinatology

Dr. Caldeyro-Barcia presented this report. It was an extensive review of the work of the Center in establishing norms for various aspects of perinatal physiology. There was convincing evidence that the more physiological position for child birth was for the mother to be erect. It was shown that there was greater parental bonding, less use of analgesics, shorter labor and a healthier baby. Various chemical parameters were measured, including factors such as acid-base status and these all indicated the physiological superiority of the vertical position. Data were also presented on the care of the newborn babies and the studies which the Center was doing in the area of breastfeeding. Several data for newborns were presented, emphasizing the need for obtaining locally relevant norms.

Of the interesting points which arose in the discussion, one of the most prominent was the resistance of physicians to change. In spite of the demonstration of the superiority of the methods used in the Center, there was still considerable physician resistance. It was noted also that these methods could not be applied exclusively in hospitals, but could be practiced by peripheral workers.

SESSION II

Research on Diarrheal Diseases

3. Report of the PAHO Subcommittee on Diarrheal Diseases Research

The Committee received a progress report of the Diarrheal Research Subcommittee.

The report of the Subcommittee reviewed: (1) the current knowledge on oral rehydration; and (2) the etiology and epidemiology of the diarrheas of viral, bacterial and parasitic origin.

Regarding oral rehydration, the Subcommittee recommended that this method be adopted by the countries as soon as possible and in order to do that, demonstration programs in hospitals be established. The composition and packaging of the salt mixture was recognized as was the need to improve rehydration schemes and the need to answer questions on sodium load adrenal function. It was recommended that operational research on oral rehydration programs be conducted, with special emphasis on transfer of technology to the home.

In respect to the etiology and the epidemiology of diarrheas of viral, bacterial and parasitic origin, current knowledge was reviewed. It was recommended that: epidemiologic surveillance of rotaviruses be with an undertaken emphasis on the identification of serotypes; a search by started for other viruses, at present not culturable; an investigation be initiated of vibrio cholerae and other vibrios in Latin America; and research be carried out on the prevalence and association of bacterial colonization factors and enterotoxin production; and an investigation mounted dealing with zymotypes of Entamoeba histolytica.

The Subcommittee saw the need to generalize the use of the ELISA for rotaviruses research; PAHO has antisera and reagents for that purpose. The Subcommittee recommended that the laboratories at IVIC (Venezuela) and INISA (Costa Rica) be considered respectively as regional training centers on the molecular biology and the diagnosis of rotaviruses. Also, the Gorgas Memorial Laboratory (Panama) could serve as a diagnostic center for Vibrio parahemolyticus, Edwardsiella and Yersinia

New techniques for the demonstration of Salmonellae antigens in feces and urine and of endotoxin in the blood were recommended. It was thought important to develop a better diagnostic method for giardiasis and other intestinal infections.

4. Epidemiologic perspective of diarrheal disease in Costa Rica

The Committee also was told of Costa Rica's participation in the diarrheal program.

The first section of the report describes the marked decline in diarrheal diseases mortality which began in the 1940's. After a period of arrest during 1948-1964, this decline continued reaching very low figures in 1977 (12 per 100,000 population). The report suggests that the decrease in mortality due to diarrhea coincided with concurrent social reforms in the stantial population growth and reduction of levels of health and the quality of life.

The second part of the report dealt with advances in research on the etiology and the treatment of diarrhea in Costa Rica, and in particular on how oral rehydration affected infant health. The research done in Costa Rica established that rotavirus, and to a lesser extent, bacteria, are the main agents of diarrhea. On the other hand, it was found that oral rehydration was a safe and effective way to treat moderate and severe dehydration in diarrheas of viral and bacterial origin. Other findings indicated: the need to increase the concentration of potassium in oral solutions; sucrose was equally as effective as glucose; and solutions and rehydration schemes were equally effective in the treatment of both neonates and older children.

The final section reviewed current efforts to prevent diarrhea and death at the national level with special attention given to rural areas. The report describes the distribution of packs of salts at the national level and the efforts made to transfer technology to the mothers to permit rehydration in the home. Secondly, through a long-term prospective field study conducted by INISA in Puriscal, a drastic change in the pattern of breastfeeding has occurred. More than 60 percent of mothers continued the breastfeeding of their children after the fifth month, a level which contrasted with the 95 percent

of infants weaned as recorded in the country by two recent surveys carried out by the Ministry of Health. The increase in breastfeeding may be related to the rooming-in and the promotion of breastfeeding in the hospital. The survival and physical growth and nutrition of the child exceeded the expected levels for the rural area.

Research in Costa Rica was currently conducted at the National Children's Hospital and at the Institute for Health Research of the University of Costa Rica (INISA) where the emphasis was on studies of oral rehydration, the transfer of technology on oral rehydration, the search for new etiologic agents, and the epidemiologic understanding of the problem in the community.

Both presentations were discussed simultaneously. The Committee was informed that infants were not usually given oral rehydration when they were moderately dehydrated, simply because they refused such treatment. It was noted that the criteria for diagnosis of dehydration were easily taught to many levels of health workers. There were comments on the design of studies in which social variables were estimated along with studies of biological phenomena.

The Committee was reminded of the necessity of considering the global program on diarrheal diseases. There had already been some twenty meetings in the various regions: at these meetings there had been wide ranging discussion on problems of etiologic agents and firm proposals and recommendations had been presented to the Director of WHO. The funding requirements for this global program would be considerable and it was essential that there be national contributions.

5. Research Program in the Activities of PASCCAP (The Community Health Training Program of Central America and Panama)

The background and justification for this program were clearly set out. At the XXIV Meeting of the PAHO Directing Council held in Mexico, early in 1976, the Government of Costa Rica had submitted a proposal for the establishment of a Pan American Center for Training in Community Health. The program began operations in March 1979 in San Jose, Costa Rica. The three main areas

of activities have been research, educational development and support sectors.

The research subprogram which was of major interest to the Committee had as its general purpose the promotion, at country level, of research applied to the expansion of coverage with the emphasis being on primary care strategy. Within this regional purpose, there were research programs specific for each country.

The Committee discussed this presentation briefly, and the attention of PASCCAP was drawn to the possibility of having some of the facilities of the UN Office for Statistics available. It was felt that it might be possible to field test some of the health components from this office. As PASCCAP was new, it was pointed out that attention should also be paid to the facility for analyzing as well as collecting data.

6. Progress report on the history of health research institutes in Latin America

Dr. Garcia introduced this study which had been aimed at discovering the laws and factors which affected scientific productivity. Except for Brazil, this kind of study was almost nonexistent in Latin America. The data covered the great majority of Latin American countries and covered the period starting at the end of the 19th Century and extending up to 1930. The development of Ministries of Health was traced as well as the formation of agencies of social securities. Much of the change in the research institutes have been focused on problems of rural inhabitants and marginal areas. It seemed that bacteriological and parasitological research had developed to the detriment of physiological research. It appears that basic research started in quantity after 1930 and was influenced by many private individuals outside of large institutional groups.

The discussion brought out other work which had been omitted and it was pointed out that the study was preliminary. It was hoped that many of the results of this study would be widely disseminated, especially to younger research workers.

SESSION III

7. Report by the Health Sciences Research Subcommittee

The ACMR received the report of the Working Group on Social Science Health Research. In 1979, the ACMR had called for an assessment of the use and the efficacy of social health indicators. To identify the nature of the work done along these lines in Latin America, a broader review of social science health research was initiated and reported upon. Based on the premise that constituent disciplines where strengthening was indicated could contribute more effectively to health services research, a number of recommendations were listed.

The Working Group's recommendations were: (1) the establishing of an advisory committee to contribute to the strengthening of the work done in those fields by PAHO; (2) the augmentation of PAHO's resources assigned to this area; (3) expansion of the 1400 items social science health research inventory; (4) the convening during 1980/81 of one or more interdisciplinary working parties to review what social science health research had been done and what social health indicators might be developed related to designated health problems, e.g. specific tropical diseases or traditional medicine; (5) to seek greater completeness in appraising what had been done, the circulation of the revised report with a request for commentary.

The Working Group also tabled a number of long-term objectives intended to strengthen the work involving the social sciences to health services research. These steps included: (1) the development of a directory of researchers in this area for Latin America; (2) the preparation and the distribution of research bibliographies related to specific health problems; (3) the establishment of regional depositories of social science health research studies; (4) based on the work done by workshops dealing with specific issues (recommendation No. 4), a broader review be undertaken of the development and the utility of social health indicators and establishing a central depository for these research tools; and (5) the strengthening of research done in the field by the provision of expert consultants, where requested.

The Working Group tabled its recommendations and long-term objectives

as a provisional appraisal. It requested the ACMR's counsel and that of the PAHO Secretariat about the next steps to be given priority.

The Committee heard comments on the report.

One view was that in regard to social sciences research applied to health and perhaps in other areas of investigation as well, researchers had to be concerned with doing useful research and making the research useful. It was felt that the work and ideas set out in the report were most useful. It was agreed that the goals of the program should be to develop young researchers, develop inventories of research and easier access to existing data as well as legitimizing the whole field of social science research. The effort in this area should be part of a general commitment to health services research and not a separate set of functions. There was a need to integrate with other PAHO research support strategies.

Another comment pointed out that in some quarters there was ambiguity about the best possible role of social research in health. Social research in health could be adjunctive or "free-standing". It was likely that health planners would prefer the type of research which was specifically directed towards a single problem. The view was expressed that the formation of an Advisory Committee might not be the ideal way of achieving the objectives.

In general, the kind of social science research undertaken needs to be sensitive to demographic and health status differentials in populations.

It was agreed that the Latin American Bibliography on Social Sciences Applied to Health was an excellent document which should be up-dated annually. The Bibliography rather than assessing quality should simply report the source of the publication. It was not felt that the mammoth task of annotation of a compiled bibliography would be worthwhile.

A final comment related to the usefulness of research to the administrator who had to make rapid decisions. Attention must be paid to the practicability and availability to the user of the results of the research.

In general discussion by the Committee, it was agreed that the report was a valuable document. Social and organization research, had to be seen and studied with relation to the other two components of health services research, i.e., epidemiology/demography and operational research.

Dr. Acuña pointed out that many activities of PAHO fell under the theme of health sciences research. He pointed out that in the discussions on this and other topics, the whole range of PAHO activities must be considered and not simply the work of a particular division.

It was argued that the PAHO/ACMR should avoid the danger of having health services research becoming non-specific and directed primarily at institutional rather than community problem. The various programs themselves should be media through which health services research was promoted and the diarrheal diseases program was a good example of this.

The Committee thanked Dr. Badgley and the group for the report.

8. Preliminary Design of a Program of Research for the Development of the Health Services

This was introduced by Dr. Gonzalez who described the basic principles of the program. Its general objective was to help extend the coverage, lower the costs and enhance the effectiveness and efficiency of health services. The research component of the program would promote and support action oriented studies based on the practical needs of the health services of the different countries. For this reason, simple epidemiological methods would be used and practical methods of systems analysis would be employed. Even at the stage of designing the research ways will have to be found for disseminating the results or benefits through the region. In all aspects of the program appropriate emphasis will be placed on the primary care aspect of health services and the inter relationship between the various levels.

It was proposed that the program be launched in 1981 and extended over a period of six years in three stages of two years each. One part of the program might emphasize the interdivisional preparation of protocols with exploratory operations research models in the areas of drug administration in health centers and hospitals, administration materials, sterilization facilities and infection control at health centers and hospitals and the development of appropriate technology for maintenance of health institutions.

The regional seminar on operation research would form part of the program. It is anticipated that before any active health services research

could be initiated in any country, these countries should have well defined national health policies and these governments should be committed to participating in the program. The program proposed would naturally be consonant with the activities of the global ACMR in this field.

The Committee thanked the Subcommittee for the work done and the program which had been proposed. It was stressed that there should be a record of the studies which had been done and workers in this field should intensify relationships with other disciplines and other aspects of health services research. There was a request for more programs in communities rather than in institutions.

9. Report of the Regional Seminar on Operations Research in Health

This was introduced by Eng. Ortiz who described briefly the start and the early development of operations research in health services as a part of the academic programs of industrial engineering and systems schools in Latin American universities. Some of this research had been done with financial support from the PAHO Research Grant Program.

These studies were carried out by workgroups formed by students of the last year of Industrial Engineer and Systems, professors, health administrators and physicians of different health institutions.

Because of the experience acquired by some pioneer groups in operations research in health in Latin America it was decided to start promotion meetings of health services research with a Seminar on Operations Research in Health, held in Washington, D. C., from 13 to 19 November 1979.

The basic purpose of this seminar had been to bring health services research to the attention of the personnel in academic programs of industrial and systems engineering and also to the executives of institutions in the health sector. Specifically, the seminar was aimed at generating an awareness of prospective applications for operations research in the health sector and setting up methods for exchange of research among the different countries in the Western Hemisphere.

The first session of the seminar dealt with the philosophy, history and methods of operations research in health. Subsequent sessions focussed on experiences of operations research in Latin American health services and on problems areas of institutional and program administration which could be subject of operations research in health.

A document was prepared which contained the general bases for a regional health services research (HSR) program. In one session there was a visit to the National Center for Health Services Research of the United States, where the Director and his staff exchanged ideas with the participants about the development of HSR in the United States. The final session was devoted to a general discussion based on the different ideas and the experience of the several participants. Recommendations were presented for different aspects of the promotion, training and conduct of operations research on health services in Latin American and the Caribbean.

The Committee received the report and in the discussion which followed it was again stressed that operations research as a part of health services research should move from institutions to communities. Dr. Acuña developed the theme of appropriate technology in relation to operations research. He said that the Division of Comprehensive Health Services would be sponsoring a meeting on this topic of appropriate technology. The aim had to be that use should be made of those technologies which were already in existence.

SESSION IV

10. A Working plan of the National Center for Health Services in collaboration with Mexico in the Borderline area

This presentation by Dr. Rosenthal first surveyed the role of the health services research as a growing area of research priority. It was proposed that if expenditure on health services research were increased within the same structures and strategies as for support of medical research, generally, little improvement in health or health care could be expected. It was suggested that biomedical research strategy was focussed on disciplines whereas health services research was not. In most instances in health services research, the unique nature of the data used would always place qualifications, limits and constraints on the generalizability of the results of any specific

study. An efficient and effective health services research effort required specific strategies to deal with the inherent absence of an orderly communication network among the diverse and disparate research community. Stress was laid on the methods of dissemination and application of research findings in this field as no orderly linkage between research and users was possible. It was felt that the health research effort needed to produce priorities which reflected identified information needs of the user community, an integrated portfolio of research findings and a system whereby users could have access to the relevant findings.

The National Center for Health Services Research was committed to implement all the aspects of a broad Health Services Research Program. Because of the commitment the Center was involved in the US-Mexico Border health initiative. The initiative would integrate the recommendations as far as health services research was concerned, it would develop projects with shared training and analysis and could fund workshops.

In the discussion it was pointed out that attention had to be paid to the placebo and other such effects. It was also said that polarization of biomedical and health services research was in some ways artificial because both disciplines should follow a similar scientific method if the research was going to be worthwhile.

11. Action-oriented research on nutrition through primary health services

In this report Dr. Daza pointed out that it had been realized that although in the last 30 years there had been significant development in the knowledge about nutrition there had not been an equivalent increase in the application of that knowledge. Many of the things which might improve nutrition practices had not been adapted to the local prevailing conditions. Appropriate technology needed to be developed in nutrition in order to allow much of this available knowledge to be applied at a primary level perhaps using a community approach. In the majority of the places in which malnutrition was prevalent it was already possible to improve the situation by using locally available foods. This was specially important in children. If this strategy of using locally available foods for children was pursued, there were two approaches -to attack the problem during the first 3 years of life and in the prenatal period and to make the maximum use of local

foods using readily available acceptable items as food supplements until the child could consume the foods from the regular family diet. There is urgency in the countries of the Region which have problems with malnutrition about carrying out operational research in which much of the knowledge already available was applied and evaluated.

It was made clear that the principal objectives of a program of action research in nutrition was to identify and facilitate practical actions which could be carried out at the level of the community and within the prevailing economic and social limitations. It was also necessary to disseminate knowledge about nutrition which could be used by all levels of workers in health and other related disciplines.

The committee accepted the report and recommended its implementation on a regional basis.

12. PAHO guidelines and review procedures for the protection of human subjects in medical research

At the 18th Meeting of the ACMR, the activities of the PAHO Research Ethics Review Committee were considered. In view of increasing emphasis on ethical review with lay representation and on the need to avoid conflict of interest, the ACMR has established a subcommittee, including PAHO staff, to make recommendations. Dr. Groot and Dr. Weller of the ACMR met with PAHO staff for this purpose.

The report presented by Dr. Weller set out the background to the problem of ethical review and described the possible role of WHO/PAHO. The PAHO Committee was established to provide a mechanism for assessment of ethical implications not only in projects submitted to PAHO but also to advise on the review procedure in PAHO centers. This report did not give guidelines on the vexed question of informed consent but concentrated on the appropriateness of the process whereby the experimental subject is informed before he signs a consent form. The report gave specific proposals as to the membership of the review committee. Stress was laid on the fact that local committee at PAHO centers as well as the PAHO committee at headquarters would include lay members and the PAHO committee would include established clinical research workers drawn from outside PAHO temporary consultants would be used in the process as needed.

A timetable for the review process was prepared and details were given of the review procedure which should be followed by individual researchers or PAHO centers. It was emphasized that the review should not add undue delays to the process of having grant applications considered. The working group pointed out that the whole matter of ethics was being considered in WHO and the Council of International Organization of Medical Sciences.

The ACMR received the report and thanked the working group. From the discussion which followed it was agreed that all committees should contain women but there was no consensus as to the necessity of having lawyers. There was a suggestion that the title of the report be changed to indicate that only clinical investigation was being considered but this was resisted since it was felt that the whole range of investigation involving humans singly or in groups should be subject to ethical review. It was agreed that whenever local review procedures existed, international collaborative research would have to satisfy both review processes. In those countries in which there was no review mechanism difficulty clearly arose and perhaps the only safeguard would be the experience, peer group confidence in and personal integrity of the individual investigators.

The problem of research in communities was extensively discussed with particular reference to epidemiological studies, the trial of drugs and vaccines. The tropical diseases research program is specially concerned about these issues, and is in the process of developing guidelines on the ethical problems related to such studies. There was no ready answer but it was felt that it was impossible not to relate directly to the individual who was being affected.

It was noted that many countries expected very clear guidelines on a wide range of ethical matters even involving appropriateness of doing trials in developing areas of the world. The current activities in WHO might provide such clear recommendations. The PAHO proposals in this field would contribute to the final international recommendations.

13. The Special Program for Research and Training in Tropical Diseases

A report on this program was presented by Dr. A. Lucas. Since the details of the program had been presented to the ACMR on previous occasions, Dr. Lucas briefly reviewed the various activities and how they had developed over the past 3-4 years. There were multiple activities which were directed towards the same goal. He pointed out that there were already a number of informal networks of collaborative research work and communication among scientists and institutions in various parts of the world. Initially, most of the work, specially the basic studies were being done in the developed world, but there had been a steady rise in the proportion of funds granted to scientists and institutions in developing countries. Particular mention was made of the training and institutional grants which aim at strengthen the research capability of the developing countries of the world. The whole world was being regarded as providing the laboratories and the training experience for the program as a whole. One of the newer activities was the rapid publication of the results of workshops. Special attention was also made of the principle of selling up working groups across the diseases; groups dealing with common problems of vector control, biomedical science and epidemiology.

There was some discussion on the funding for the program. WHO only contributed 4% of the budget from regular funds. Fund raising was the responsibility of WHO and its co-sponsors of the Program. The World Bank particularly was active in raising funds for the program. The problems of manpower were discussed and it was noted that specifically in developing countries scientists were in short supply and the most acute need was in the area of field research.

SESSION V

14. Development of a continental program of applied field research in Malaria

Dr. Najera analyzed the evolution of the antimalarial programs in the Americas, emphasizing the lack of progress and even deterioration of the situation during the last years possibly as a result of rapidly increasing

costs of control programs. The governments concerned and the Directing Bodies of PAHO/WHO have recommended the revision of antimalarial strategies and the formulation of a new continental plan of action against malaria. Essential components of this plan were the intensification of epidemiological studies, the participation of the community and the primary health care services and the development of coordinated regional programs of research and training.

It was recognized that serious efforts to promote and support research in malaria had been made by various countries and the Organization, particularly since the establishment of the TDR program. Although there had been great achievements in the development of laboratory based research, field oriented research in epidemiology and control methodologies was still very limited and poorly coordinated.

Among the causes of this slow development were the attitudes of anti-malarial programs which were not conducive to the formulation of collaborative research between control and research workers. There was also the loss of interest of the scientists in a disease which was considered eradicable, the high costs of field research, the lack of trained malaria epidemiologists, and the overwhelming demand for quick short-term solutions to field problems.

It was recognized that the possibility of future progress in malaria control was dependent on a better knowledge of the epidemiological, ecological and sociocultural factors which make malaria a problem and there was an urgent need to develop a field research program which would respond to the problems and the long-term needs of malaria control.

The support of the ACMR was needed for the promotion of such research program and the training on which it would depend. Epidemiological research on malaria had to be given a high priority within the plans for biomedical research in all countries where malaria continued to be a serious public health problem.

15. World plan on malaria field research and its regional projection

Dr. Lepes introduced this topic and pointed out that the resurgence of malaria in some countries of South East Asia, Central and some countries of South America since the early 1970's had prompted political reaction by a number of affected countries and numerous steps had been taken by governments and the World Health Organization to remedy the situation. The Director General of WHO responding to requests made by Member States had presented to the 31st. World Health Assembly on May 1978, a Malaria Control Strategy which had been endorsed by the Assembly. The proposed strategy had taken into account all possible ecological situations and the infra-structural support required. It indicated four possible levels of control ranging from reduction and prevention of mortality to eradicating the disease. The strategy postulated that four conditions should be satisfied if malaria control/eradication programs were to be successful. These were:

1) that there should be a national will and the political decision to undertake malaria control/eradication programs;

2) that the governments should decide on long-term support for anti-malaria activities;

3) that any malaria control/eradication program must be an integral part of a country's health program; and

4) that community participation must be secured and these should be multisectorial and multidisciplinary cooperation at central, intermediate and peripheral levels.

It was further postulated that for the implementation of a malaria control strategy, flexibility and an epidemiological approach should fully be applied.

Dr. Lepes said that the reaction of Member States to the resurgence of malaria and steps subsequently taken had resulted in a reduction of reported cases of malaria from more than 8 million in 1976 to slightly over 4 million in 1979. Nevertheless, a detailed analysis indicated that

with exception of few countries like India, Sri Lanka and Turkey, where this reduction was quite evident, in other parts of the world there was generally stagnation.

At this stage of the development of malaria control/eradication programs there were four types of activities that should be carried out simultaneously. These were: 1) control of epidemics and prevention of further spreading; 2) preparation of long-term malaria control/eradication programs; 3) training; and 4) research.

The development of national expertise was critical since without it, it would be difficult to undertake those applied field research activities required for the development of long-term malaria control programs. However, laboratory based research undertaken to develop new tools in terms of antimalarial drugs, vaccines or chemical or biological products and agents for the control of the vector, should provide greater possibilities for malaria control in the future.

Antimalarial activities had to be carried out within the social targets of all Member States and with the primary health care system as principal functionary. The present type of malaria control could easily lead to the failure not only of malaria control programs per se but also to the failure of one of the principal functions of the primary health care system that is the control of locally prevailing communicable diseases.

There was discussion on both topics together. It was not generally realized that there was a great deal of ignorance of vector biology in this area. It was possible that this decrease in malaria was a result of mass distribution of drugs which reduced the mortality and perhaps led to a fall in reporting of cases. It was also pointed out that the research effort in this area was very sparse. In some of the countries the degree of control varied with such things as population density and migration.

A point which was brought out forcibly was that in many countries there was often little collaboration between the health services in general and malaria eradication programs. It was felt that the health services

needed to make malaria control an integral part of their programs. It was even suggested that there should be a study to determine the reasons why there was so little collaboration between administration of health services and directors of malaria control programs.

Another reason for the lack of research workers, in malaria specifically and in infectious diseases in general, was the failure of some universities of the region to place emphasis on these topics in their basic teaching programs.

It was stressed that many of the mistakes made in the field of malaria control was as a result of failure to apply basic epidemiologic techniques. Not only was there a lack of appreciation of epidemiological methods but also there was a marked shortage of field workers to apply these methods. Special note was taken of the fact that it was necessary to change the attitude of some health workers to eradication of malaria. The community as a whole had to be prepared for the new methods for control of malaria. It was pleasing to see attention being paid to knowledge of the mores and beliefs of the communities in the current approaches to malaria eradication.

16. Health and biomedical information

Dr. Ferreira introduced the subject and made a brief review of the establishment of BIREME in 1966. This had been based on recommendation of the PAHO/ACMR.

Among the achievements of that initiative was the improvement of BIREME's collection and technical capacity, the installation of the Medlars data base, and the development of an indexing capacity which lead to the production of the Latin American Index Medicus. These efforts, though representing a considerable advance were not enough to keep pace with the growing demand and rapid development of information. It was possible to estimate a 300% increase in the potential users of biomedical information. At the same time a 2000% increase was being estimated in the cost of subscriptions by the year 2000.

The Scientific Advisory Committee of BIREME reviewed this situation in 1979 and pointed out the following concerns in relation to future developments in this area:

- a) growing operational cost
- b) need of technological adjustment to the new configuration of Medlars
- c) potential developments in the field of telecommunications which should be taken into account in order to improve the network
- d) lack of parallel development of the library system in other Latin American countries.

A working group was then created to analyze these problems and propose adequate solutions. Site visits to selected countries were made to review the situation at local level, and four meetings were held which brought together some 50 experts to study the problem.

17. Information for health development - Its importance in research

Dr. Sonis further amplified the work of BIREME in this area. The concept of "health development" was increasingly being proposed to express some of the trends in the concepts and goals of the health programs. If the community was viewed as a whole it was possible to determine the factors which hampered this "health development." Some of the factors were to be found in any sector, not necessarily in health.

Access to relevant and necessary information was one of the factors which might affect this development. Therefore, data had to be screened and adequate information had to be given to the appropriate users to allow them to put into practice certain alternatives which might increase the possibility of solving the health problems. The most fundamental activities in laboratories and the most sophisticated ones for primary health care all required information. Eventhough the information for each kind of research was not the same nor were the means to disseminate it, usually the periodic publication continued to be the main source. Since the cost of these periodicals was high it was difficult for some institutions

in Latin America to maintain extensive collections. It was therefore necessary to have a facility which would analyze the utilization of information, determine which information was needed for each institution and establish traditional or non traditional means of providing it.

18. A health information and documentation network for Latin America and the Caribbean Area

Dr. White completed the presentation on this subject.

A long range working group established by the Scientific Advisory Committee of BIREME had prepared specific plans for expanding the availability of bibliographic documentation resources in the Region. During four meetings involving over 50 individuals and consultants from Latin America, Canada, England, and the USA, it had considered many working papers and detailed analysis of the bibliographic requests received by BIREME. The essential facts were that one medical library in the Region had over 1,000 journals: 23 libraries or 10% had over 300 journals, one library had gone from 300 periodicals to 22 in three years. About half of the requests could be satisfied with 100 titles, and 97% with 500.

The recommendations were guided by the principles of selectivity in assembling specific core collections for both peripheral and more central supporting libraries, resource sharing through union lists and catalogues using mini-computers and telex communications, and adaptability to the realities of limited resources and the need of various users. Although the ultimate objective was to involve 1,000 libraries in the Region, it was only realistic to start modestly. Accordingly, 45 basic libraries were considered suitable for initial expansion and participation in the first five subregional networks. These would be linked to nodes and to BIREME by telex. Some of the libraries might be in institutions with little or nothing, and five years of basic periodicals (retrospectively and prospectively) would be supplied on microfiche. A revolving fund would be used to purchase periodicals in bulk and cost-sharing by users at all levels would be introduced. Over four years, the full program was estimated to cost about US\$6 million. Dr. White contended that the cost of information was high but the cost of ignorance was greater.

The Committee received all the reports on this topic and was enthusiastic about possible means of continuing and amplifying the service offered by BIREME. In the discussion it was suggested that the postal services might give some special preference to documents coming to or going from BIREME. This was possibly not the ideal way to proceed as all the postal services in the Region left much to be desired. It was noted that one of the most effective ways of improving the system was by "strengthening the BIREME network at the periphery." It was clear that newer methods of data transmission would have to be considered for the future. There were difficulties in such areas as the social sciences, since the classification systems were often inadequate, but this was being rectified. Studies were being done to develop methods of retrieving data based on the method used by the investigator to make the request.

EXECUTIVE SESSION

Dr. Alleyne reported on the meeting of the Global ACMR which was held in Geneva in November 1979. He commented on the remarks by the Deputy Director General with regard to the role which WHO was expecting research to play in the development of a new economic order and in the attainment of health for all by the year 2000. The Global ACMR had received and discussed the reports from the six regional ACMRs. There were many points of similarity specially in the movement towards working through subcommittees or working groups.

Health services research continued to be a priority in all the regions. Coordination between ACMRs might be achieved by interchange of reports and attendance of chairmen of ACMRs at other ACMR meetings. Dr. Alleyne commented specifically on the approach of the Global ACMR to subcommittees. These had finite lives and once an adequate level of activity had been stimulated and the necessary programs had been introduced, when it was time for that subcommittee to be disbanded and attention focussed on some other area which

needed to be developed. The Global ACMR had discussed the research aspect of "health for all by the year 2000" and had considered three major relevant themes. These were disease oriented research programs, health services research and health promotion research.

Dr. Bergstrom, Chairman of the Global ACMR, amplified the above points and noted the formation of two new subcommittees on mental health and research administration. He pointed out again the short life of the subcommittees. The one on diarrheal diseases had established the direction of the program which had now reached the stage at which extrabudgetary funds were being obtained. It was clear that all regions were in agreement on the need for information but none had gone as far as PAHO in providing a good system. Mention was made of the quarterly Bibliography of Tropical Diseases, which was being circulated to all persons in developing countries who receive the Newsletter. Something similar was being planned in the area of diarrheal diseases. It was pointed out that the proposed booklet on health services research would soon be completed.

The Committee discussed the program of activities for 1980/81. It was agreed that there were two areas of activities which should be pursued through scientific subcommittees or working groups. It was agreed that the Subcommittee on Diarrheal Diseases had done valuable work during the year, however the position on diarrheal diseases had changed globally. The Director General of WHO was in the process of securing extra budgetary funds for diarrheal diseases and it had been agreed that these funds would not be disbursed through the regional offices, but through regional scientific working groups. It was therefore necessary to make preparations in this Region to so reorganize the present subcommittee that it could be transformed into the kind of working group which would participate effectively in the global program.

It was agreed that the areas of health services research which had been covered under the heading of social science research and operational research, both had important roles to play in all the fields of investigation discussed.

It was agreed that Dr. Badgley would continue to be the Chairman of the group on social science aspects of health services research and Dr. Flagle would be Chairman of the subcommittee on health services research.

It was also agreed that operations research resources develop their research strategies in conjunction with the complementary work of the social sciences, recognizing both fields as major and essential components of the broader area of health services research.

RECOMMENDATIONS TO THE DIRECTOR

The Committee commented on all of the reports presented, but it was felt that there should be a separate section summarized with the discussions and recommendations.

1. Child nutrition and mental development

The Committee received this report with enthusiasm, noting the wide range of activities which had been covered and the fundamental importance of the findings.

Recommendation: The Committee recommended that a mechanism should be found to ensure the widest publication of these findings.

2. Research activities in the Latin American Center of Perinatology

The committee received this report and noted with satisfaction the important work of this center which had become the most important training center in perinatology in the Latin American Region.

Recommendation: The Committee recommended that support be continued for this excellent program.

3. The history of health research institutes in Latin America

The Committee expressed interest in this work. It was relevant and the results should be of interest specially to young researchers.

Recommendation: The Committee recommended that means be found to disseminate the essential findings of this study widely and the further work should be brought to the attention of a future meeting of the ACMR.

4. Diarrheal diseases

The Committee received and discussed the two reports in this field. It noted the excellent work being done in Costa Rica and in addition commented on the activities of the Diarrheal Diseases Subcommittee.

Recommendation: The Committee recommended that the ACMR Subcommittee on Diarrheal Diseases be strengthened by the addition of social and operational research capabilities.

5. Health services research

The Committee heard and discussed the several reports and presentations in this field. The Committee was specially interested in the proposed activities of PASCCAP in this area. It was noted that although PASCCAP was new, its proposed research activities showed promise of being of immense value to the Region it serves. The Committee also reviewed the report of the working group on social science health research and congratulated the group on the amount of effort which had been made and the results which had been obtained to date. The Committee also paid special attention to the report of the 1979 PAHO Seminar on Operations Research.

Recommendation: The Committee recommended:

- a) That the research activities of PASCCAP be supported and continued.
- b) That the Director, as a method of strengthening health services research find specific funds for this activity. Budget proposals to the Directing Council should contain a specific amount to be directed towards health services research.
- c) That the working group on social sciences continue its work and be asked to:
 - i) coordinate its activities within the specific program priorities of the organization;
 - ii) further develop and complete the social sciences health research inventory;
 - iii) be responsible for identifying the potential input of the social sciences by means of interdisciplinary subgroups in the fields of diarrheal diseases and malaria;

- iv) extract from the inventory references applicable to specified program areas and prepare an annotated bibliographic series on these matters;
 - v) as a long-term objective and under the aegis of BIREME to prepare annotated social science health research bibliographies dealing with specific diseases and health problems. These bibliographies would be included in BIREME's program of selective dissemination of information.
- d) That in the area of operations research a seminar or similar activity be organized by PAHO during 1980/81. This would focus on the application of operations research to primary health care and review the relationships between alternatives in the allocation of resources and potential outcomes in primary health care programs.

6. Action oriented research in nutrition through primary health services

The Committee accepted the report and endorsed the proposed strategies for implementing new lines of applied research in nutrition. The approaches contained the basic approach of built-in action interventions for the solution of problems at a community level, using locally available resources and focussing initially on activities related to infant and child feeding.

Recommendation: The Committee recommended that means be found to implement a regional research program in nutrition along these lines, taking into consideration the conclusions and recommendations of the PAHO/WHO Technical Group Meeting on this subject to be held in Bogotá, Colombia, 16-20 June 1980.

7. PAHO guidelines and review procedures for the protection of human subjects in medical research

The Committee received, discussed and made minor amendments to this document. It was agreed that this was a most useful definition of the procedures which would serve to protect the interests of the individual as well as safeguard the reputation of PAHO and its centers.

Recommendation: The Committee recommended that report and its proposals be implemented immediately.

8. Regional activities vis-a-vis the Special Program for Research and Training in Tropical Diseases

The Committee heard with interest of the further development of the above program. There was special interest in its growth and the security of funding for the future. Note was also taken of the facility for extending training into areas not specifically covered by the six diseases.

Recommendation: The Committee agreed to recommend that a subcommittee on tropical diseases research be established in the ACMR.

9. Research on Malaria

The Committee received two reports which gave the outlines of the research and the problems related to control of malaria at the regional and global levels. There was consensus that the major problems were a lack of epidemiological data and a shortage of field research.

Recommendation: The Committee, taking into consideration the urgent need for field research as a basic component of malaria eradication and control activities recommends the strengthening and enlargement of the training programs for personnel capable of conducting such research. The Committee further recommends that means should be found for encouraging individual countries to expand substantially their research programs on malaria.

10. Health information systems

The Committee heard the presentations on this important topic and agreed that top priority must be placed on mechanisms by which appropriate information can be provided to the potential users. The Committee congratulated the Scientific Advisory Committee of BIREME for the work done in this area.

Recommendation: The Committee recommended that the report be accepted immediately and the program be pursued as proposed.