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### **REPORT OF THE ADVISORY COMMITTEE ON HEALTH RESEARCH**

The XXXIV Meeting of the Advisory Committee on Health Research (ACHR) was held at the headquarters of the Pan American Health Organization in Washington, D.C. from 12 to 14 July 1999. Discussions dealt with subjects related to programs and strategies for PAHO cooperation in research and the findings of research projects supported by PAHO.

In regard to programs and strategies, the Committee reviewed the results of a survey of PAHO managers in the PAHO/WHO Representative Offices in the countries, in the Pan American centers, and at Headquarters on the content and direction of its research activities. Based on this survey, a draft directive was prepared establishing a system of cooperation in research with defined objectives and responsibilities for each of the Organization's units. Also discussed were the activities of the Program on Bioethics, the Research Grants Program, and the Pan American Center of Perinatology (CLAP). The ACHR members visited the PAHO Divisions and Programs to discuss and make recommendations on their research cooperation activities. The ACHR was informed about the current status of the reorganization of the research area in WHO.

With respect to the findings of research projects supported by PAHO, there was discussion of the final reports from the project on Investment in Health and Economic Growth and from the five projects on the organizational and financial aspects of Health Sector Reform. All these projects were selected through research competitions promoted by PAHO's Research Grants Program.

The ACHR issued a series of specific recommendations on each of these topics, recommendations on its own operating dynamic, and general recommendations. The general recommendations include the following:

- Reiterate the recommendations from the previous meeting on preparation of the regional agenda for research, promotion of the exchange and education of researchers, and support for countries with less scientific development. The Committee feels that implementation of these recommendations implies sustained work over several years and recommends that a progress report be presented at each meeting.
- Just as PAHO has established rigorous criteria and mechanisms for the technical evaluation of protocols, it should do the same with respect to assessing the outcome of the research it supports, before disseminating and distributing it.
- PAHO should provide greater support for research activities in the area of health systems and services and promote a multidisciplinary approach to research on health problems, including biomedical research.

The report of the XXXIV Meeting of the ACHR to the Director of PAHO is presented in the Annex for information and dissemination by the delegations to the 41st Directing Council.

Annex

**Report of the  
XXXIV Meeting of the ACHR**

**12–14 July 1999  
Washington, D.C.**

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## **REPORT TO THE DIRECTOR**

XXXIV Meeting of the Advisory Committee on Health Research  
12 to 14 July 1999, Washington, D.C.

### **SUMMARY OF PRESENTATIONS**

#### **I. Inaugural Session**

*1. Opening Remarks of the Director of the Pan American Health Organization, Dr. George A. O. Alleyne*

Dr. Alleyne reiterated the importance of the Committee as an advisory body to the Director of PAHO, stressing that to perform this important function it is essential that the Committee have access to adequate information. The agenda of this meeting seeks to serve that end, including recurrent subjects in ACHR meetings such as the activities of the research grants program, as well as new areas such as bioethics. He pointed out that promoting research should be a key component of the technical cooperation of the Organization, which although it is not a financing agency, should seek to concentrate its limited resources on highly important topics, such as some of those to be discussed in the meeting, particularly the impact of health investment on economic development. He also mentioned the need to strengthen training activities for researchers. He expressed his satisfaction with achievements such as the publication of the study on violence and health and voiced his hope of further promoting the participation of Committee members in the life of the Organization and of having a greater ability to implement its recommendations.

*2. Opening Remarks of the Chairman of the ACHR, Dr. Jorge Allende*

Dr. Allende began by expressing his satisfaction at serving for the first time as chairman of the ACHR. His participation at the last meeting in Caracas made him aware of the excellence and commitment of the Committee's members, as well as the complexity of its work. He pointed to the recommendation on preparing a regional research agenda as one of the most important events of the last meeting, despite the difficulties in carrying out the recommendation due to the constraints faced by several countries in setting their own agendas. He mentioned that activities are underway in Chile in this regard, with the broad participation of various actors. He pointed out that one of the most important components of this process is to strengthen the infrastructure, particularly the training of researchers. The international environment has been favorable

to initiatives in this regard, with recognition of the need to base health policies on sound scientific evidence. Dr. Allende also referred to the world meeting sponsored by UNESCO and ICSU that had ended the week before, where the importance of scientific policies and the social impact of science was reiterated.

## **II. Presentation of the Agenda and Report on the Implementation of the Recommendations of the XXXIII Meeting**

Dr. Alberto Pellegrini, in charge of PAHO Research and Secretary of the ACHR, presented the meeting agenda, noting the reasons for including the subjects and the expectations regarding the discussion of each subject.

Concerning the last meeting, he recalled that the principal recommendations dealt with the preparation of a regional research agenda, the establishment of a mechanism for the exchange and training of human resources, and support for countries with less scientific development. Regarding the first two recommendations, he reported that a series of activities are under way for a project in the MERCOSUR countries, taking advantage of MERCOSUR's integration mechanisms. The project includes a scientific and technical information component, another component on human resources exchange, and a third component on information for health services management and health promotion, with the three components coordinated under the Virtual Health Library. Instead of an *a priori* list of priorities, the agenda would be the result of the interaction among these three components. This project will be presented to the RECYT (Meeting of the MERCOSUR S&T) in November of this year, and negotiations are in progress with the European Union for financial support of the project.

Regarding the other recommendation on cooperation with the less developed countries issued by the last meeting, negotiations are under way for agreements with the CONICYTs of the Central American countries, with a view to creating a research fund to provide support for priority subjects.

## **III. The Promotion of Research in WHO**

Dr. Nicole Biro, interim head of WHO's Research Policy Strategy and Cooperation department (RPC) gave the presentation on this subject, reporting that RPC is one of the departments belonging to the cluster known as *Evidence and Information for Policy* (EIP), which is one of the 9 clusters created by the new WHO administration. The functions of RPC should be understood in the context of this new structure, particularly the fact that EIP's mission is horizontal in nature and linked to several WHO programs under a multidisciplinary approach, for the purpose of providing the programs with

information and analytical tools. The mission of EIP also includes responsibility for analyzing and synthesizing the experience produced by the various programs of the Organization and translating it into accessible information on which to base the decision-making process with respect to national and international health policies.

Meeting the countries' needs and building the decision-making process are the two fundamental criteria for evaluating the work of the three EIP departments, including RPC. The new Director-General of WHO (DG) emphasizes the importance of basing all WHO activities on solid evidence and scientific excellence. In 1998, a process was set up for the review and evaluation of WHO cooperation activities in research by an internal working group and an external committee made up of several noted scientists. The report from these groups was presented to the WHO Executive Committee in May 1999. The report emphasizes the need to monitor and maintain the scientific, technical, and ethical quality of the work of the various WHO programs. With regard to the more specific work of RPC, the report recommends discontinuing the panels of experts, better utilization of the Collaborating Centers by establishing networks among them, reducing the members of the CAIS, greater targeting of its activities as an advisory body of the DG on strategic subjects relating to technical cooperation in research, and reviewing the work of the various programs. RPC should collaborate to increase the scientific capacity of WHO and the member countries, to maintain databases on scientific output, research policies, and scientific infrastructure, and to forge ties with other agencies working in the field.

A new director of RPC was appointed, who should assume office in August. The principal mandate of RPC is to work with and through the CAIS, to collect and produce evidence and information for developing science policy and to coordinate the work with the CCs. With respect to the CCs, after a process of review, recommendations were made to improve the processes for selecting and evaluating the CCs, as well as their communications with the WHO programs.

#### **IV. Technical Research Cooperation by PAHO**

This subject was presented by Dr. Sylvia Robles, a member of the Internal Advisory Committee on Research (IACR), and by Dr. Alberto Pellegrini. In order to analyze PAHO's situation with respect to technical cooperation in research, in mid-1998 the IACR conducted a survey of the various technical agencies of the Organization, both at Headquarters and at the Representative Offices in the countries, including the Pan American Centers. Dr. Robles presented the methodology and the results of this survey, indicating the following as its principal conclusions:



- In general, the various entities or levels of the Organization lack an explicit agenda to guide their technical cooperation activities in research.
- In the Divisions that have research agendas and projects, the prevailing emphasis is on operational research to provide immediate answers for concrete technical cooperation problems. There is no mention of more strategic research that requires a longer-term and sustained effort.
- The mobilization of financial resources for research faces a series of obstacles, given reduced government investment in science and technology.
- There are no institutionalized mechanisms for the technical and ethical review of research project proposals in the Representative Offices, Pan American Centers, and Divisions.
- There is no clear policy on educating researchers in the countries or within PAHO itself.
- PAHO's support for conducting health research varies substantially among the countries of the Region and reflects the availability of infrastructure and human resources.
- There is limited coordination among the various entities of the Organization for promoting and supporting health research activities. In addition, there are no institutional mechanisms for applying the findings of the research studies supported or carried out.
- The Divisions and Pan American Centers use the technical expertise of numerous WHO Collaborating Centers. However, such collaboration does not tend to be programmatic and is limited to specific activities that frequently require financing from the Organization.

Based on these results, the IACR prepared some recommendations, in particular:

- Define the frame of reference, responsibilities, and coordinating mechanisms for the research cooperation activities of the different units of the Organization.
- Intensify efforts to mobilize financial and scientific and technical resources, both for promotion and support of research and for strengthening national research capabilities.

- Provide technical cooperation to develop a research policy and agenda in the national arena to guide the efforts of both the scientific community and the Science and Technology Councils.
- Promote and support the initiative of some Pan American Centers to form networks of national institutions or associated centers to participate in multinational research.

Dr. Pellegrini then pointed out some strategic factors that should guide technical cooperation in research and that had been taken up by the IACR and in the exchange between the Committee and managers of the various PAHO programs. These factors include:

- *Research Agenda:* Both the research activities of the countries and PAHO/WHO technical cooperation in this field should be guided by an explicit agenda based on clearly established technical and participatory criteria. In addition to supporting the preparation and implementation of national research agendas, PAHO/WHO should try to establish regional research agendas, i.e., to identify research problems of regional importance, whose origin and impact are regional in scope and whose solution necessitates a regional cooperation effort.
- *Research for Cooperation versus Cooperation for Research: A False Dilemma.* In the survey a prevailing view was that research promoted by PAHO is linked to and supports the activities or the priority subjects/areas of PAHO technical cooperation rather than supporting research *per se*. This apparent conflict between research for cooperation and cooperation for research is actually a false dilemma. There is a clear need for the countries of the Region to define health research policies using a strategic approach, i.e., to define policies that both solve problems and develop national scientific capabilities.
- *Cooperation Agreements among Countries:* The existence of common problems whose origin and impact are not limited to individual countries creates the need to establish research cooperation agreements among countries that allow for the coordination of efforts to deal with these problems. However, there are potential distortions, such as a type of discrimination between the roles of “countries that enter with problems and countries that enter with solutions.” This may ultimately accentuate inequities in terms of capabilities, and access to findings. Furthermore, the clinical trials of new drugs conducted by large pharmaceutical companies in some countries of the Region are raising ethical concerns, given the weakness of the internal review mechanisms and the vulnerability of the subjects, who would not be likely to benefit from the findings due to the high cost of the drugs.

- PAHO's involvement in these collaborative studies should both facilitate opportunities for consensus-building and define suitable criteria and mechanisms to prevent these distortions.
- *Technical and Ethical Review:* In many Divisions, Pan American Centers, and Representative Offices there are no established criteria and mechanisms for reviewing the projects in which they are involved. This indicates the need for clear definition of such criteria and mechanisms, as well as of the corresponding responsibilities of the various entities of the Organization.
  - *Promotion of Ties between Research and the Decision-making Process:* Bridging the gap between the generation and utilization of knowledge is one of the main challenges for scientific activity in the Region. PAHO can play an important role, acting at the level of policymakers, helping them to make more and better use of the scientific information available, and at the level of researchers, helping them to procure more effective dissemination of their results. Initiatives favoring the development of these activities include the Virtual Health Library, which can play a key role as virtual intermediary between the producers and users of knowledge.
  - *Mobilization of Resources for Research:* The survey conducted through questionnaires and interviews indicated a concern about mobilizing resources to develop the research activities of both PAHO and the countries. Usually, these resources are identified as financial resources and the need to mobilize them is recognized, bearing in mind a clear agenda of priorities. The mobilization of human and institutional resources to support research activities in the countries should be an important component of PAHO's technical cooperation activities in this field. The Collaborating Centers seem to be a mechanism with great potential in this area that should be used to better advantage.
  - *Internal Coordination:* The interviews and responses to the questionnaires reflect weaknesses that still exist in the communications between policymaking, coordination, and review entities, such as the ACHR, IACR, PAHOERC, and HDP/HDR and the entities that execute the cooperation activities in substantive areas. A directive that defines responsibilities and coordination mechanisms is needed, and Dr. Pellegrini presented a draft of such a directive. The PAHO Research Information System (RIS *Research Information System*) and better use of new technologies (the Web page for research) may be an important element for integration and communication among these entities.

## V. The Regional Program on Bioethics of PAHO

The presentation on the Regional Program on Bioethics was given by its Director, Dr. Fernando Lolas Stepke. The Program is a component of the Division of Health and Human Development and was established by PAHO in 1993, under an agreement with the University of Chile and the Chilean Government.

The Program promotes knowledge of bioethics where there is none, supports incipient efforts wherever they have been established, and provides a permanent service for information and advice on technical cooperation in health. Other PAHO Programs and Centers use it as a tool, and it collaborates with them so that they will consider the ethical and human dimensions from the time they begin to formulate their guidelines and plans.

Its activities in its five years of existence include, notably, participation in training plans and programs in the Americas, especially through monographic courses, lectures, and seminars, and specialized courses for professionals, with credit from the University of Chile. To date these courses have yielded over 80 trained graduates and have exposed hundreds of people to the subject matter of bioethics. These activities have included the collaboration of academics from the Complutense University of Madrid, Spain, and experts from several countries.

The Program has also contributed to public awareness of bioethical subjects and content and has participated in the formulation of teaching plans and programs at various institutions through technical opinions, advice, and assistance.

In collaboration with the Research Program at PAHO, it has conducted studies on ethical review in agencies funding biomedical research in the Region and on the practice of informed consent and reporting in research. It also participates in an educational program for children and adolescents that uses short stories to put young people in touch with the ethical implications of science and technology, with support from the Ford Foundation. Its Documentation Center, together with BIREME and outside experts, prepares a *Bioethical Thesaurus* in Spanish and will contribute to installation of the Virtual Library in Health, a project of the Division of Health and Human Development. Through both on-line and printed publications and information bulletins, it maintains a network of people and institutions informed about current developments and receives inquiries and suggestions.

The Director of PAHO has formed an International Bioethics Committee to advise him on this issue and to evaluate the results of the Program on Bioethics. The conclusions of the first meeting of this Advisory Committee in May 1999, devoted to examining research on human subjects, represent a valuable contribution to the researchers of the hemisphere. Together with this committee of experts, whose terms will

last two years, a broad working group has been set up in Latin America and the Caribbean to act as a network for exchange of information and to assist in outlining policies for dissemination and growth of the discipline through bulletins and the publication *Bioethical Proceedings*, currently being studied.

The main theme of the first meeting of the Advisory Committee on Bioethics of the Director of PAHO was research on human subjects, precisely because of the urgency and importance of the subject. Globalization of the social processes associated with science and technology makes it necessary to review declarations and codes formulated in other contexts and under other circumstances. For example, there is no up-to-date treatment of research financed by a developed country and conducted in an underdeveloped country in the Nuremberg Code, the Declaration of Helsinki, or the CIOMS standards.

The Regional Program and Research Coordination conducted a survey together with the region's CONICYTs, concluding that few of them have an ethical review committee for projects, and that most follow the practice of relying on the committees of the institutions requesting the funds.

Some biomedical scientists consider ethics committees a bureaucratic obstacle to the management of research, one that focuses on "rituals" associated with informed consent, inconsistent with an evaluation of scientific merit. Promoting clinical research faces the dilemma of applying protocols designed in the United States or Europe to Latin American countries or adapting them to local practice. These protocols are sometimes strict about matters that are foreign to Latin American communities, where individual autonomy does not play the same role as in the countries where the protocols originated. Sometimes, academic or health authorities do not reexamine them, because they come from prestigious centers and are accompanied by economic incentives that stimulate research in the host country. Clinical trials are not always beneficial for local communities, as they sometimes lead to the development of drugs whose market value will make them inaccessible to those communities.

The practice of "safari research" in which a group of experts from a developed economy goes out to "hunt down data" from an underdeveloped country does not seem objectionable to some researchers in the underdeveloped country, who benefit from the prestige and subsidies involved in collaboration. The practices for publication of results do not always require explicit statements regarding the means used to recruit volunteers, how the samples of individuals are formed, documentation of the risks of some procedures, or potential conflicts of interest with agents outside academia.

The Program seeks to help the countries to overcome these problems with the following lines of action:

- Promotion of social awareness of bioethics, through public information, inclusion of the subject matter in plans and curricula, and training of professionals working in biomedical and psychosocial research.
- Dissemination of the declarations, agreements, and codes related to scientific and technical, health, and education.
- Advisory services to lawmakers, planners, opinionmakers, and academic groups regarding sources of information, results of studies;
- Provision of services to public and private institutions to establish processes for the review and ethical regulation of scientific practice.

Dr. Roberto Mancini of the Regional Program on Bioethics then presented the results of a survey conducted with the national S&T organizations (ONCYT) to learn about the criteria and mechanisms they use in the ethical review of projects submitted to them for support. Responses to the survey were received from 21 ONCYTs from an equal number of countries. Only the responses of Trinidad and Tobago, El Salvador, Paraguay, and Puerto Rico were missing. The principal findings were as follows:

- None of the ONCYT has an ethics committee itself, but 71% of them rely on an external Ethics Committee (division of a government agency or scientific and/or academic body) that evaluates the research submitted to the respective ONCYTs. The remaining 29% do not conduct ethical evaluations of the proposals submitted to them.
- Eight countries (Brazil, Mexico, Costa Rica, Canada, the United States and Puerto Rico, Cuba, Jamaica), 38.1% of the sample, have legislation or national regulations establishing strict ethical guidelines for research on human subjects and the requirement of a review of protocols by a Research Ethics Committee independent of the sponsoring institution. Three countries (Argentina, Chile, and Venezuela) are in the process of defining these standards, and the remaining ten (47.6%) have no regulations or national agencies supervising ethical reviews.
- Of the ONCYTs, 71.5% require that all research protocols involving human subjects be evaluated by an ethics committee that is independent or belongs to the institution where the project will be conducted.

The principal conclusions of the survey point to a serious deficiency in the ethical control of the projects submitted to these agencies. Although the vast majority requires an ethical review of protocols and has mechanisms for accrediting the researchers, they do not have bioethicists who review and supervise research on human subjects.

The existence of Institutional Ethics Committees in most of the countries that review and approve research protocols is not a guarantee of safety or quality, because many of them do not have adequate training in bioethics nor do they have sufficient support for their work. At present, this is an assumption based on previous research, and should be confirmed by a specific survey. Another survey in preparation will try to confirm the status of ethical review in the Region's scientific publications. All of the above will make it possible to compile a database to support PAHO cooperation activities in this field. The acceptance that this survey received, with 90% of the countries responding, seemed to demonstrate the interest that exists on the subject, which implies good prospects for the cooperation activities that will be developed.

## **VI. Research Financing in Latin America and the Caribbean**

Dr. Pellegrini introduced this subject, recalling that several sessions of the ACHR had noted the need for better understanding of the new trends in health research financing in the Region and for supporting researchers and institutions in establishing mechanisms to attract resources. These trends are seen at both the macro level, with respect to amounts and sources, and the micro level, with respect to the criteria and mechanisms for allocating resources for projects. At the macro level, the main trends are diversification of the sources of funding, particularly increased resources from the private sector and from foreign sources. In addition, resources, especially those of the development banks, are no longer directed to human resources education and strengthening of the scientific infrastructure, but rather to setting up funds to promote ties between science, technology, and production.

At the micro level the mechanisms for allocating resources to projects, institutions, and researchers are being redefined, with greater concern for quality and selectivity. The trends observed at this level include the strengthening of project review processes, support for expert groups, and the establishment of incentives based on productivity.

The dimension and impact of these trends in health research should be better known. In addition, the increased complexity of financing mechanisms requires training and support for researchers so they can take advantage of the new opportunities. In order to meet these two needs, PAHO opened a line of cooperation on health research financing.

Dr. Panisset, of Research Coordination, then presented the objectives and cooperation activities that are being developed in this line of cooperation, with basically two components:

- Identification of trends in the financial resources available for health research and monitoring of public and private, domestic and foreign financing sources.
- Support for researchers through the creation of mechanisms for better identification of possible funding agencies.

Regarding the first component, a significant obstacle is the absence of information that is adequately broken down to identify resources for health research by subject, type of research, group, etc. Information on financing from the World Bank and the IDB is still difficult to compile. In cooperation with the IDB, a study was conducted between 1992 and 1998 to compile information on health research financing. In this period, 27 IDB loan projects were reviewed in 18 countries.

Of all health sector loans from the IDB between 1992 and 1998, 6.7% went to research, for a significant total of US\$263,987,000. In some countries, these resources have great relative importance. For example, the Brazilian Research Council (CNPq) spends nearly US\$100 million per year on health research, while the health research component for 1996 under an IDB loan to the country amounted to US\$60 million. The IDB's health research spending represented 7.5% of all health research spending in Argentina and 40% in Brazil in 1996. In Panama, the official figures for spending on health research and development was US\$3.6 million, but this figure omitted an IDB loan for health research totaling US\$4.2 million.

The examination of the loans reveals another important aspect of IDB financing for health research—namely that regardless of the variations between countries, 85% of all IDB resources were executed by national consultants/researchers and the remaining funds by international consultants. Negotiations are under way with the World Bank to conduct a similar analysis.

Regarding the second component, i.e., support for resource mobilization, a workshop was held in Washington in April 1998 to develop the proposed system for this purpose. The system was called *OFIS (Oportunidades para el Financiamiento de Investigación en Salud* or Opportunities for Health Research Financing) and consists of a group of databases available on the Internet that contain information on national and international public and private organizations supporting research and human resources



development in the area of health research. *OFIS* also includes training workshops for researchers on how to prepare proposals with greater potential for success.

Three *OFIS* pilot projects are in the initial implementation phase in Chile, Cuba, and Mexico, where workshops were already held with researchers and other potential users to determine their information needs. The project in Mexico, coordinated by CENIDS, has made greater progress; it has already finished identifying all the principal national and international sources available in the country and has cooperated with BIREME to develop software to support users in accessing the data. This year, the institutions participating in the pilot projects are developing the infrastructure and courses needed to implement the information system in Chile, Cuba, and Mexico, and it is expected that *OFIS* can be disseminated to the other countries of Latin America and the Caribbean within two years.

## **VII. Visits to PAHO Divisions and Technical Programs**

As at previous meetings, the members of the ACHR visited PAHO Divisions and technical programs in groups of two in order to learn about and discuss the research cooperation activities in progress with the respective staff members. On this occasion, given that PAHO is in the process of programming its activities for the biennium 2000-2001, the discussion focused on the technical cooperation anticipated for that period and on an evaluation of the achievements and difficulties encountered in the biennium that is coming to an end.

## **VIII. Results of the Research Project on *Investment in Health and Economic Growth***

The report on findings from the project on *Investment in Health and Economic Growth* was submitted by its principal researcher, Dr. David Mayer, Director of Mexico's Center for Economic Research and Education (CIDE). The project was developed by a consortium of CIDE and FUNSALUD of Mexico and FEDESARROLLO of Colombia and financed by the PAHO Research Grants Program, through a competition in which various groups in Latin America participated.

The Latin American and Caribbean countries have instituted a process of economic rationalization in recent years in an attempt to achieve high levels of sustainable growth. Under these circumstances, there have been major long-term policy decisions in the area of health investment. Although much attention is given to the problems of health sector restructuring and efficiency, it is essential to specify how health affects economic growth, income distribution dynamics, and education. It is also

necessary to establish the best health indicators and to identify possible policy proposals. The principal questions that the project sought to answer were as follows:

- How important is health in economic growth, as an input for production?
- How important is the distribution of health in terms of the distribution of income and economic growth?
- To what extent does health affect the formation of educational capital reserves in the different sectors of the population?
- What is the causal relationship between economic growth and health?
- How important is the quality of health indicators in measuring the effects indicated above?

To answer these questions, four databases of economic and health indicators were constructed, one for by Latin American and Caribbean country, and the others by state or department for Mexico, Brazil, and Colombia. In the case of Brazil, the economic database includes income deciles.

In general terms, the research allows us to conclude that health plays an important role in economic growth, a role that is even greater than that of education. In some tests, the relationship between education and growth becomes negative, contrary to expectations, possibly because the indicators capture the level of education in age groups where it represents investment.

The analysis of two-way causation shows that in Mexico (1955–1995), health is strongly related to income growth, with a lag of between 15 and 20 years. The inverse causal relationship of income's effect on changes in health is weaker, and we note that improvements in health depend more on public policies and technological and behavioral changes.

Research on the role of health in the economic and demographic transition of Brazil (1980–1995) reveals complex relationships that have both a positive and a negative impact on all the indicators. Health increases income growth by fostering productivity, education, and economic participation, especially for women. The magnitude of this impact may be as high as 2% per year over the long term, since most important component of the impact operates through education (1%). However, health also increases fertility at low and average income levels, and this tends to reduce both income and schooling, except at high income levels. Health also has an impact on the

distribution of income. Poor distribution of health leads to divergence in the income of the lowest 40% of the population in Brazil.

Economic growth and improvements in health levels are linked. As we have seen, due to characteristics intrinsic to the health sector, the causal relationship between income and health is weak. Optimal allocation of investment resources in health necessarily involves the implementation of adequate public policies that not only make the health sector efficient but also take into account its effects on growth. These effects are long-term and occur largely through improvements in human resources in education, another sector in which public policies have weight. Health may increase fertility and thereby slow the increase in per capita income. This means that there must be consistent policies on health, education, and fertility.

Health policies should also consider distributive aspects. If benefits do not reach the lower-income population, they cause a polarization of income and cease to have an effect on those sectors of the population for whom health investments produce the highest yield. It is also important to recall that economic growth is not an objective in itself. For example, if health increases the number of women who choose to remain at home rather than work, as happens in high-income households in Brazil, and this reduces income, far from involving a negative impact, it may represent the ability of women to better pursue their preferences.

Finally, given the complexity of the interactions between health and education, efficient implementation of public policies in a changing environment requires having adequate information to evaluate its effects, costs, and benefits. Consequently, both inside and outside the sphere of public services and health, it is essential to promote the systematic development of information sources with the breadth necessary for these purposes. These should systematically correlate demographic and health indicators with information on education, economics, and the impact of public subsidies. This information should be obtained comprehensively from broader household surveys and from the institutions providing the different public services.

After Dr. Mayer's presentation, representatives from the IDB, the World Bank, and ECLAC commented on the findings. Dr. Zuleta of the IDB recalled that the study presented is part of a joint PAHO/IDB initiative, as the studies promoted by IDB are microeconomic in nature and seek to learn about the relationships between health, productivity, and household income. He felt that these studies are among the first empirical evidence showing the link between health, productivity, and economic growth in Latin America, and are thus very important. In addition to the findings as such, these studies are allowing the databases on health and economics to be constructed, and are also permitting new methodological developments in the study of these relationships. The

results obtained are not as impressive as anticipated, necessitating better synthesis of the results and the promotion of new studies to explore new indicators and methodologies.

Dr. Easterly of the World Bank voiced his concern about some of the findings, particularly the surprising effect of improved life expectancy on economic growth in Mexico. With significant improvements in this indicator in Africa and worldwide, a greater impact on economic development would be expected, and this does not occur in this case. The indicators and methodology used may be responsible for unexpected outcomes. Regarding the weak association found between growth in income and improved health, this result confirms previous studies, indicating that improvements in health indicators are probably more strongly linked to other factors such as technology development.

Dr. Helvia Velloso of ECLAC mentioned that in the 1990s Latin America has been experiencing a resurgence of economic development and increased social spending. However, an increase in social inequities is also being observed. She stressed the importance of studies such as those presented as the basis for development policies aimed at overcoming inequities.

## **IX. Results of the Research Competition on Sectoral Reform**

Dr. Gordon de Friese, a member of the ACHR and chairman of the HSSR Subcommittee, introduced the subject, recalling how the research competition on sectoral reform supported by the PAHO Research Grants Program was organized, and how the HSSR Subcommittee of the ACHR was very involved in preparing the terms of reference and selecting proposals. He called attention to the importance of this initiative, given the need for better knowledge of the reform processes and their impact and the need to develop new approaches and methodologies to study these processes. The initiative should be seen as an investment for the future and should be followed by similar initiatives and by follow-up and support for the network of relationships that grew up among the participating groups. Other agencies are financing proposals in this area, and PAHO can and should assume a leadership role in promoting and coordinating these various initiatives.

Dr. Luis Rosero Bixby of the University of Costa Rica then presented the findings from the five research projects financed by the Research Grants Program through the call for proposals mentioned above. The projects were conducted by researchers from Brazil, Colombia, Costa Rica, Peru, and Uruguay.

The five projects deal with health sector reforms or transformations taking place in the respective countries. Except for the Colombian study, all the studies are explicitly

and directly concerned with the issue of “equity.” In the Brazilian study, the central issue is whether the reforms of the 1990s have improved equity, particularly in the allocation of resources to the states and regions. It also analyzes equity in the context of norms and regulations, as well as in morbidity and service utilization. The Costa Rican study focuses on geographical equity in the population’s access to services. The Peruvian study is more ambitious: it proposes to evaluate the impact on equity of access and resource allocation, as well as on the efficiency and quality of services. The Uruguayan study focuses on evaluating whether quasi-privatization and co-payments have diminished equity in the use of, access to, and user satisfaction with services, as well as on morbidity and the level of health knowledge among users. Although the Colombian study indicates an implicit concern about equity, its key focus is decentralization: the extent of progress made in the process and the obstacles encountered.

Dr. Bixby then presented summaries of the projects in terms of objectives, methodologies, and results, attempting to make comparisons among them insofar as possible. The five studies present a wide variety of methodological approaches, ranging from the qualitative case study to the use of sophisticated tools of quantitative analysis. With respect to results, the Brazilian and Peruvian studies conclude that the reform has not meant a more equitable allocation of resources; the Uruguayan study concludes that the reform does not seem to impair equity in access to services for the poorest groups; and the Costa Rican study concludes that the reform has resulted in greater equity in access. The Colombian study identifies several obstacles to decentralization.

The five studies show that “health sector reform” is very far from being a homogeneous concept in the Region. Reform can be understood as meaning a wide variety of transformations that are taking place in our countries. The problems examined in these five studies were very different. The methodological designs and analytical techniques used were also very different. This diversity makes the studies very rich, but also limits the ability to compare them and to make generalizations about their results.

Regarding the utilization of results, the results from the Colombian case studies are probably the most useful for formulating or changing policies, since they identify very concrete aspects of the processes that are not working properly. However, since they are based on subjective assessments deriving from the observation of very few cases, their value is more anecdotal than scientific. Perhaps they should be taken as hypotheses to be tested using quantitative studies in representative samples.

The results from the Brazilian study, in turn, offer the lesson that reform processes must go beyond rhetoric if we really want to improve equity. Policies should move from words and regulations on paper to action. The Peruvian report poses interesting questions about the advantages and disadvantages of subsidizing supply or demand. The traditional

public subsidies to the supply of services are accused of creating inefficiency and poor quality. The new schemes for subsidizing demand are accused of being inequitable (they do not meet the needs of the poorest groups) and ineffective (they neglect preventive measures in favor of curative measures). This debate is critical in most health sector reform processes. The Uruguayan study contributes evidence to the debate by showing that subsidizing demand has not meant deficient care for the poorest groups. The Costa Rican study shows that a reform based almost entirely on subsidizing supply can make definite contributions to improving equity. Naturally, many issues remain to be clarified in such a complex debate.

## **X. Report of the Research Grants Program**

Dr. Rebecca de los Ríos presented the principal achievements and results of the Research Grants Program (RGP) and pointed to last year's emphasis on research publication activities sponsored by the Program, as well as the dissemination of results via the *Internet*. In this regard, she pointed to publication of the findings of the multi-center study on *Cultural Norms and Attitudes toward Violence* (Project ACTIVA) in a special issue of the *Pan American Journal of Public Health* and creation of the *Technical Papers Series in Public Health Research* as a means for rapid dissemination of the methodological documents and final reports of research projects financed by the RGP. She also reported on the creation of the RGP Website where information on subsidies is provided to researchers, research competitions are announced, information is provided on multi-center projects, and documents in the above-mentioned Series are published electronically.

On promotion and support for research projects, Dr. de los Ríos explained that the most successful RGP approach has been the Program supporting master's and doctoral theses, although the distribution of subsidies by country indicates concentration in the more developed countries. Following the recommendations of the ACHR at the Caracas meeting in 1998, agreements will be established this year with the Science and Technology Councils of some Central American countries, initially Guatemala and Costa Rica, to promote and support research in those countries. In addition, an agreement was established with the Central American Population Program to support the theses of the Central American students pursuing master's degrees in Population and Health. The activities carried out for selection of the subjects for three regional research competitions and the multi-center project approved for 1999 were also announced.

## **XI. Research Activities of the Latin American Center for Perinatology (CLAP)**

The research activities conducted by PAHO's Pan American Center for Perinatology (CLAP) were presented by its Director, Dr. José Miguel Belizán.

Dr. Belizán provided an overview of the status of maternal and child health in the Region, noting that perinatal and maternal mortality in Latin America and the Caribbean show few improvements over the last 25 years, an alarming contrast with the more developed countries. The international scientific community, led by the developed countries, makes few contributions to solving priority problems in our countries, as in the case of low birthweight due to intrauterine malnutrition.

In addition, health care requires that practices with proven benefits be used and that practices without benefits or that may even cause harm be discontinued. However, many inefficient practices continue, while others with proven benefits have not been adopted.

Based on the above, CLAP research strategies seek to:

- Learn about the priorities of perinatal and maternal health in the Region and try to identify the principal factors that determine it.
- Determine which treatments have proven benefits and should be recommended and implemented in maternal and perinatal care.
- Generate behavioral change in health providers and users so as to detect beneficial practices and apply them.
- Conduct research aimed at providing solutions to priority problems.

To achieve these objectives, CLAP collects and analyses regional databases, conducts critical analysis of scientific literature, performs collaborative clinical research, investigates methodologies for incorporating evidence-based medicine, and provides education and mass dissemination of evidence-based medicine.

The central structure of CLAP includes a body of professionals with training in clinical research and evidence-based medicine, as well as adequate infrastructure for information and documentation on the conduct of research.

During its 30 years of existence, CLAP has set up a unique system of data collection in many centers of the Region, creating an extensive database that is representative of the Region. Through analysis of this database, priorities can be set and the factors associated with maternal and perinatal findings can be identified. This relationship with the countries has led to collaborative research, the teaching of numerous courses, and presentations at meetings and congresses, all of which has resulted in a new initiative, i.e., the formation of a network of CLAP collaborating centers in the Region.

These centers will teach, collect and analyze data, implement best practice, conduct their own research, engage in collaborative research, and promote the best care.

After reviewing various activities carried out by the Center in education and technical cooperation, Dr. Belizán ended by presenting some of the principal research projects now in progress:

- *Randomized Study on Second Opinions in Decisions to Perform Cesarean Sections:* This is a randomized study using the cluster method in which participating hospitals are instructed at random to seek a second opinion in deciding whether to perform a cesarean section or continue with customary practice. During the six months prior to the study, the hospitals collect information for the database on the incidence and causes of cesarean sections and vital statistics. The intervention stage will last six months and consists of seeking a second opinion in each decision to perform a cesarean section.
- *Interventions to Improve Fetal Growth:* There is a series of research studies on this subject, such as epidemiological studies using databases that already exist in CLAP, studies evaluating treatments such as folate supplements for pregnant teens, and supplementation with other nutrients such as l-arginine, magnesium, and zinc.
- *Monitoring Infants in Uruguay with a Birthweight of Under 1500 g:* This involves an epidemiological study of morbidity and mortality in newborns weighing less than 1500 g.
- *Interventions to Improve Maternal Health:* A random clinical trial on calcium supplementation during pregnancy for women with low calcium intake to prevent preeclampsia.
- *Nutritional Cost of Pregnancy and Breast-feeding in Adolescents:* A study of 1,000 adolescent women from low socioeconomic populations in countries of the Region. Nutritional status will be studied at six months postpartum and will be related to various variables of pregnancy and breast-feeding.
- *Research on Adolescents in the 1982 Birth Cohort in Pelotas, Brazil:* The main purpose of the project is to analyze the Barker hypothesis on intrauterine determination of chronic degenerative adult diseases.



## **DISCUSSIONS**

### **I. The Promotion of Research in WHO**

- The Committee took note of the changes still underway at WHO Headquarters with respect to cooperation in research, pointing to some subjects such as the Collaborating Centers. In this regard, it recommended that WHO take into account and ultimately adopt initiatives such as those of PAHO to achieve better utilization of the CC, for example, improving the selection, monitoring, and evaluation process, creating and maintaining CC networks and improving communications between the CCs and the technical areas of the Organization and among the Centers themselves.
- The Committee also noted out the importance of reviewing the activities of the various agencies and ad hoc organizations that were created during the previous administration and continue to overlap the formal structure of WHO, duplicating efforts and resources.
- The Committee called attention to the need for a clearer definition of the role of the Global ACHR in general and recommended that regional ACHRs be formally represented at ACHR meetings.

### **II. Technical Cooperation in Research by PAHO**

- The Committee reiterated the importance of technical cooperation for establishing agendas, which should not be confused with lists of subjects prepared by a group of experts but involve the broad participation of a variety of actors with transparent objectives, criteria, and mechanisms. These agendas, at the regional, national, and institutional levels, should guide support for and evaluation of projects, mobilization of resources, and other technical cooperation activities. These agendas also make it possible to overcome dilemmas and false dilemmas with respect to the allocation of resources.
- The goal should be to counteract the trend in which the availability of external financing defines national agendas. It is important to develop the capacity to attract these resources and negotiate their utilization based on national needs.
- The heterogeneity of the Region's countries means that cooperation activities must take into account the diversity of needs.

- PAHO cooperation should seek to create a culture of research, allowing for greater participation and social support for research activities.

### **III. The Regional Program on Bioethics of PAHO**

- The Region's ethics committees should be up-to-date about the new technologies so that they can define practices suitable to them, as in the case of maintaining confidentiality when databases tend to be publicly available in electronic format. They should also analyze ethical implications and formulate standards relating to new trends such as the commercialization of knowledge and the gene pool.
- PAHO cooperation should not be limited to promoting the creation of ethics committees, since their degree of independence, composition, and the training of their members are all as important as their existence.
- An effort must be made to harmonize the strengthening of ethical review processes with support for research under difficult circumstances, so that the two processes are mutually reinforcing and not antagonistic.
- Ethical review should not be viewed as interference by a group of inspectors in what researchers do. Ethical review must be based on researchers' solid awareness of the ethical implications of their work and on society's confidence in science. This implies developing greater awareness of the ethical aspects of science among the general public.
- Although concern about ethics is not limited to obtaining informed consent, this continues to be a fundamental procedure that is often not properly carried out, as subjects are not duly informed about the risks and benefits of their participation.
- The Regional Program on Bioethics should strengthen its links with all the other programs of the Organization. It should also create opportunities for discussion so as to develop a better knowledge about the differences in ethical concepts among the different cultures in the region.

### **IV. Research Financing in Latin America and the Caribbean**

- The ACHR recognized the importance of the initiative to create the *OFIS*, recommending that it be expanded to the entire Region as soon as the pilot experiments are complete.

- PAHO should follow up the studies on the allocation of financial resources to research, seeking to identify the degree of consistency with health needs.
- *OFIS* should base its support for researchers not only on databases of potential offers from financing agencies, but also on databases of projects in progress, seeking to identify the respective sources of funding. It is thus important to strengthen ties with the SHARED system.
- PAHO should support a meeting of international funding agencies to present opportunities for investments in Latin America and the Caribbean. *OFIS* should be viewed as a system that provides opportunities not only for researchers (its priority) but for financing agencies for more efficient allocation of their resources.

**V. Results of the Research Project on *Investment in Health and Economic Growth***

- The Committee recognized the importance of the subject and the need to produce empirical evidence on the importance of investments in health, not only from the ethical standpoint but also from the economic standpoint, following the example of what happened with investments in education.
- However, it voiced serious concerns about methodological aspects of the study, particularly with respect to the quality of the data used, the adaptation of indicators, and the statistical tests used. It also expressed concern about the conceptual underpinnings of the economic models used.
- The Committee indicated that the statement that technology development is more important for improving life expectancy than increases in income is a hypothesis not confirmed by the study.
- The Committee felt that, given the importance of the concerns expressed, PAHO should promote a more detailed review of results, using peer review, before any results are disseminated.
- PAHO should promote more exchanges between economists and epidemiologists to discuss the methodological problems encountered and to plan possible future research.

**VI. Results of the Research Competition on Sectoral Reform**

- The Committee expressed its satisfaction with the initiative and agreed with Dr. de Friese’s suggestion on continuing to promote and coordinate similar initiatives.
- However, it expressed concern about some of the methodological weaknesses observed, indicating that greater benefits may be obtained from the resources invested if support for project development is strengthened. PAHO should try to mobilize senior researchers willing to provide this support through advisory services, reviews, and shared databases.
- Despite the importance of diversity in approaches and methodologies, comparative analyses should also be conducted to identify the most progressive components of the reform in terms of combating inequities.
- PAHO should support a more detailed process for reviewing studies and promote discussion with researchers on the results of this review.

## **VII. Report of the Research Grants Program**

- The Committee reiterated its support for the proactive approach adopted by the Research Grants Program to encourage projects through various methods, in order to achieve more efficient utilization of its limited resources.
- Regarding possible strategies for expanding the Program’s resources, it was suggested that the possibility of agreements with financing agencies be explored. Under such agreements, PAHO would be responsible for promoting, reviewing, monitoring, and evaluating projects, and the financing agency would be responsible for providing the financial resources to execute them. Mention was also made of the need to explore with the multilateral banks, particularly the IDB and the World Bank, the possibility of allocating resources for regional projects and activities, in addition to loans for projects at the national level.
- The Committee reiterated the importance of the multicenter projects as a method for solving common problems through common efforts, and as an expression of cooperation among countries based on the spirit of Pan Americanism.
- Despite the need to expand resources, the Committee members acknowledged that the resources that the Program allocates to each project are not negligible, and that greater knowledge is needed regarding the ‘seed effect’ of such resources both for

- mobilizing financial resources from other sources and for mobilizing the counterpart physical, material, and human resources of the beneficiary institutions.
- Regarding the dissemination and utilization of results, the ACHR recognized the importance of publishing final reports on special projects in the technical documents series (on paper and in electronic format) and in issues of the PAHO journal. It also pointed out the importance of insisting that researchers submit their reports as scientific articles. Regarding the transfer of results to decision-makers, the Committee reiterated the importance of rigorous peer review of the scientific merit of results before studies are passed on. It mentioned the importance of the Virtual Health Library for disseminating results to a broad public and the need to forge ties with the activities of government schools or social management schools operating in the region.

#### **VIII. Research Activities of the Latin American Center for Perinatology (CLAP)**

- The Committee expressed its great satisfaction with the presentation of CLAP activities, indicating that it is one of the best examples of how mutually reinforcing relationships can be established between research, education, and technical cooperation activities.
- The Committee voiced its concern over the possibility that this excellent work will be hampered by a lack of funds and the difficulty of mobilizing extrabudgetary resources, due probably to limited interest among donors regarding the subject of perinatology.
- It was noted that one way to overcome the problem of the failure to utilize research findings to change practices is to further empower patients, particularly women, in their dealings with health workers, and this, in fact, is one of the objectives of CLAP's activities.

#### **IX. Report on Visits to the Technical Divisions**

- The Committee made a series of specific observations and recommendations for each technical area visited.
- It reiterated the importance of this activity to provide the Committee with better knowledge of the Organization and the capacity to have a more direct effect on work in the area of research.

- To increase the impact of this activity, the Committee suggested that a clear agenda be developed for the visit to each technical area, that a report be written on implementation of the recommendations from previous visits, and that consideration be given to conducting this activity one or two days before the Committee meets so as to allow more time for interaction with staff in each area and for analysis of coordination among the areas.

## RECOMMENDATIONS

The Committee made three types of recommendations: recommendations on Committee operations and meetings; general technical recommendations; and specific technical recommendations. Regarding recommendations on the ACHR itself and its meetings, the Committee made the following recommendations:

- The ACHR understands that the Director of PAHO should be the one to select the subjects for which advice from the Committee is requested. However, the agenda should be circulated in advance so that ACHR members will also be able to make suggestions regarding subjects they consider important for PAHO consideration.
- Documents should be circulated sufficiently in advance, and they should indicate what type of recommendation or advice is desired from the Committee with respect to the subject matter addressed.
- A session should be devoted to following up recommendations from previous meetings.
- Two ACHR members could be given responsibility for introducing the discussion on each subject/document.
- Representatives from financing agencies or other regional organizations connected with research could be invited to the meetings.
- Each ACHR meeting should include a presentation by a high-level expert on the state of the art in a given field or discipline, for the purpose of discussing possible implications for the work of the Organization.
- New ACHR members should receive more information on the Committee, its objectives, and operation.
- Between meetings, ACHR members should be asked more frequently to promote PAHO activities, review projects, and provide advisory services.

### *General technical recommendations:*

- The ACHR reiterated the recommendations from the previous meeting in 1998, particularly those relating to preparation of the regional agenda, promotion of the exchange and training of investigators, and support for countries with less

- scientific development. The Committee feels that implementation of these recommendations calls for sustained work continuing over several years and recommends that a report be presented at every meeting on the progress made with respect to each recommendation.
- While PAHO has rigorous mechanisms for the technical evaluation of protocols it should establish equally rigorous criteria and mechanisms for evaluating results before they are disseminated and passed on to others.
  - PAHO should maintain more regular contacts with the organized scientific community in the Region, participating in association meetings and networks of scientists and institutions and inviting representatives from these networks to participate in meetings such as those of the ACHR.
  - PAHO should again take up the task of supporting biomedical research, which was successful in the past, particularly in the areas of biotechnology and molecular biology, given the importance of these areas for scientific and technical development and for solving health problems.
  - In view of the growing importance of Research on Health Systems and Services and its interest across-the-board for all of PAHO's technical areas, the Committee recommends that a new institutional *locus* be defined for this type of research, with conditions and resources adequate for supporting and coordinating the efforts of these areas in the Organization.

The specific technical recommendations for each subject presented appear in the summary of discussions on these subjects.