IMPACT OF THE RESEARCH GRANTS PROGRAM OF
THE PAN AMERICAN HEALTH ORGANIZATION

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IV. SUMMARY
I. INTRODUCTION

Preliminary data on the evaluation of the impact of research supported by the Research Grants Program (RGP)

Toward the end of 1992, DRC (now HDR) began an evaluation of the impact of the studies concluded with funding from the Research Grants Program since 1985. That evaluation covers four levels of analysis:

a) determination of the contribution of the knowledge produced by those studies towards explaining or addressing the priority health problems at the national levels;

b) analysis of the contribution of completed research projects to their field of knowledge, with particular attention to the contributions that can be confirmed in the development of the corresponding subject areas;

c) identification of the role played by grants among sponsoring institutions and research teams, as well as the degree of fulfillment with regard to the technical and administrative processes implemented by PAHO;

d) acquisition of information from the corresponding technical programs as to whether the results of the research supported by those programs and the RGP are known, used, or have been incorporated in some way with technical cooperation activities.

Two of these four levels of analysis focus particularly on the issues of quality and relevance (a and b), while the other two aim at aspects related to dissemination and use of research supported by the RGP.

The pages that follow constitute a preliminary report on level (c) prepared based on information contributed by investigators and a report on (d) done based on information contributed by the staff at PAHO Headquarters. Levels (a) and (b) are not discussed here, as they are covered by studies that are being conducted separately.

The order of presentation is the following: the first chapter describes the impact of the completed research according to the relative importance and use of the grant, the characteristics of the research teams, the dissemination, use, and transfer of results and, lastly, the opinions of the investigators on the grant received. The
second chapter identifies within the Organization the factors that favor or hinder the promotion of pertinent quality studies through the RGP mechanism, as well as the use of their results in the corresponding technical programs. Lastly, some agreements and contradictions concerning the information obtained in the two previous chapters are presented.

II. RESEARCH SUPPORTED BY THE RESEARCH GRANTS PROGRAM ACCORDING TO INFORMATION PROVIDED BY INVESTIGATORS

This chapter provides an outline of the general features of the studies completed, the methods used in gathering information, and a preliminary presentation of results that attempts to highlight the most relevant points from the material obtained.

A. GENERAL FEATURES

The RGP has received 929 research proposals up to now, 240 (26%) of which were approved after having been evaluated by the technical programs and the Advisory Committee on Health Research (in the case of the studies endorsed by the programs). There are also 52 proposals (6%) that are pending review.

Of the projects approved, 103 (43%) have been completed up to now (the rest are divided between projects under way, delayed, or canceled). The ratio of projects approved to projects completed by country is the following: Argentina has 42 projects approved and 21 completed (50%), Brazil has 55 approved and 20 completed (36%), Cuba has 18 projects approved and eight completed (47%) thus far, Mexico has 30 approved and 14 completed (47%), Venezuela has 15 approved and 6 completed, and the remaining countries taken together have 80 approved and 34 completed (42%). In accordance with the estimates made in HDR, between 15% and 20% of the projects that have been approved can be considered to be under way. The rest of the difference between the projects approved and the projects completed is explained by the fact that some projects have been delayed and others have been canceled by the principal investigators or the sponsoring institutions.

Of the completed projects, 55% were undertaken at the instigation of PAHO and 45% were submitted spontaneously by investigators to the RGP. All of the completed projects relate to one of the 14 subject areas defined in 1988: 1) health profiles (11 projects); 2) process of technological development in health (8); 3) political process and health (5); 4) labor force in health (11); 5) organization of health systems and services (8); 6) health economics and financing (5); 7) organization of environmental sanitation systems and services (20); 8) growth, development, and
human reproduction process (6); 9) health and disease in the adult population (6); 10) health and work (3); 11) aging and health (4); 12) women, health, and development (there are still no completed projects in this area); 13) health research (5), and 14) priority technological developments: biotechnology (11).

With regard to whether the completed projects were instigated by PAHO or submitted spontaneously: in the area of "health profiles," 10 of the 11 research projects completed were instigated by PAHO, as were 7 of the 9 projects in "process of technological development in health." All of the projects in "aging and health" (4), "research in health" (5), and "biotechnology" (11) were undertaken at the instigation of PAHO. The situation is the opposite in the case of the area of "organization of health systems and services" (with 1 project instigated by PAHO out of a total of 8 projects), in "organization of environmental sanitation systems and services" (4 PAHO-instigated out of a total of 20 projects), in "growth, development, and human reproduction process" (no PAHO-instigated projects and 6 completed spontaneous projects), and in health and work (3 projects, all spontaneous). The other subject areas are more or less balanced between PAHO-instigated and spontaneously submitted projects.

The completed projects break down as follows: Argentina (20%), Brazil (19%), Cuba (8%), Mexico (14%), Venezuela (6%) and others (Chile, Colombia, Costa Rica, Ecuador, Guatemala, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Uruguay, and the United States of America).


B. METHODS USED IN GATHERING AND ANALYZING INFORMATION

To determine the investigators' perspective of the role played by the grants in strengthening the research teams and institutions, as well as to confirm the dissemination, use, and transfer of the results, information was collected through a survey made up of a total of 83 questions (37 principal questions and 46 secondary questions), 33 of which were open questions; of these, 29 were closed in the process of editing the survey, and 4 were subjected to a qualitative analysis. The survey was sent to the principal investigators on the studies that were completed, with the recommendation that it be answered collectively by all the investigators on the team. When this was not possible, the principal investigator answered or, in his absence, a member of the research team designated by him.
The survey was sent out in February and to date 47 responses (46% of the total) have been received, representing 50% of the PAHO-instigated research and 50% of the spontaneously submitted research. All of the subject areas with completed research projects are represented in the responses obtained in the following proportions: 45% in health profiles, 25% in process of technological development in health, 20% in political process and health, 64% in labor force in health, 62% in organization of health systems and services, 40% in health economics and financing, 35% in organization of environmental sanitation systems and services, 67% in growth, development, and human reproduction process, 50% in health and disease in the adult population, 67% in health and work, 50% in aging and health, 60% in health research, and 36% in biotechnology.

The country breakdown in percentage of responses with regard to completed research is the following: 48% in Argentina, 65% in Brazil, 75% in Cuba, 29% in Mexico, 67% in Venezuela, and 29% in all of the rest of the countries. The percentage of responses in terms of year of approval of the grant is the following: 41% in 1985-1986, 45% in 1987-1988, and 69% in 1989, 1990, or 1991.

Although this sample may be quite representative, it is important to examine the information obtained under the hypothesis that it reflects the research that had the greatest impact and that the investigators who responded were interested in having their opinions considered. Although there is evidence that in specific cases the reasons for not responding depended on factors not related to the proposed hypothesis and that there were studies that had a recognized impact about which information did not arrive on time, it is expected that in the next stage the values found for the indicators considered will not be the same.

C. PRESENTATION OF RESULTS

The preliminary results of the survey, organized in three parts, are presented below.

The first part describes the criteria selected to learn about various aspects of the studied concluded: a) relative financial importance of the grant and how it was used by the investigators, b) characteristics of the research teams, c) dissemination of the results, and d) use of the results. The second part briefly discusses the 10 projects that were found not to have had any impact, based on the combination of the five most important indicators taken into account. The third part presents the opinions of the investigators on various aspects of the grant received.
1. Information for the analysis of impact

a) Some data on the relative financial importance of the grant and how it was used by the investigators

i) Excluding the expenditures covered by the sponsoring institutions, most of the projects (64%) were financed completely by the RGP, while for 19% the grant represented between 50% and 99% of the financing, for 13% the RGP contributed between 10% and 49%, and for the remaining 4% the grant represented less than 10% of the total financing received. This indicates that PAHO contributed less than half of the total cost of the project in only 17% of the cases (without taking into account the contribution from the sponsoring institutions).

ii) The grant funds in most of the cases (77%) were not used for training activities aimed at one or more members of the research teams. Books and/or scientific journals were purchased in only 32% of the projects, while in 45% of the cases grant monies were used for subscriptions to scientific journals, which generally were not renewed after completion of the research project (in 81% of the cases).

iii) The grants that were used (completely or in part) to buy computer equipment (30% of the total) served to upgrade the equipment of the sponsoring institutions and in all cases the equipment purchased is still being used by those institutions. The procurement of computer equipment with grant funds was most frequent in Cuba, where 67% of the persons responding to the survey purchased equipment, in contrast, for example, to Brazil or Argentina, where in the case of 85% and 70% of the projects, respectively, no equipment was purchased.

iv) With respect to the interest on the part of the investigators in submitting new projects to the RGP after the study in question had been completed, it was found that approximately half of the research teams or some of their members presented new proposals to the RGP after their study was completed. Some of those proposals were approved (11 out of 23), others were rejected (6 out of 23), and the rest were being prepared or evaluated at the time of the survey (6 out of 23). The group that did not present any new proposals to PAHO (24 out of 47) gave very different reasons, some of which had nothing to do with PAHO, as for example the entry of the investigators into government service, the breakup of the team, trips abroad by the principal investigator, difficulty in combining research activity with the daily work in the government or in the services, and the demands of the academic career of the investigators. The reasons given by the investigators for not presenting new projects to the RGP having to do with PAHO were basically financial (for example, the lack of financing to pay the principal investigator or the amount of the grant) and
technical (for example, the lack of priority assigned by PAHO to the proposed subject of study, differences in objective between PAHO and the investigators, loss of contact between the investigators and the technical programs).

b) Characteristics of the research teams

i) Most of the principal investigators had received their basic training in medicine (66%), followed by chemistry and biochemistry (8.5%), and engineering (6.4%). The remaining investigators came from a variety of fields, with only one or two representatives from each (sociology, anthropology, psychology, statistics, economics and administration). The other members of the teams were also primarily from the field of medicine, although there were more participants from the social sciences in subject areas involving those sciences (in 30% of the projects one or more investigators from the social sciences participated on the team).

ii) In 60% of the cases the research team was formed from the time at which the research proposal was drawn up; 40%, in contrast, were set up at the time the study was formulated or carried out. Of the aforementioned 60%, most (80%) of the teams were affiliated with the sponsoring institution. Of all the research teams, 66% remained together after the projects were completed, and 72% of those groups continued to do research on the same subject. In the case of the research teams that continued after the research had been completed, 32% received funding from PAHO (from the RGP or the technical programs), sometimes combining that funding with funds from the institution or from sources outside the institution other than PAHO. At other times their work was carried out exclusively with institutional financing or with funds from sources outside the institution other than PAHO. At the country level, in Argentina and Mexico most of the teams were set up when it came time to carry out the projects. In the case of Cuba and Brazil, the reverse was true, since the research teams had already been set up previously. It should be pointed out that most of the teams established for formulating or executing projects remained together in the cases of Mexico and Argentina, and one or more of their members continued to conduct research on the same subject after the project had ended, while for the cases of Brazil and Cuba the teams that continued to study the subject in question were the same ones that had existed prior to the PAHO grant.

iii) The teams that did the research showed different degrees of stability. None of the teams, however, fulfilled the four conditions for stability that were considered, namely: a) prior existence of the team as such before the project was drawn up; b) prior existence of the team as a part of the sponsoring institution; c) continued existence of the team after the conclusion of the study supported by the RGP, and d) continued work by the team on the subject. According to the responses that were
obtained, 25% of the research teams met three of the conditions. Of that group, 67% were teams that submitted their projects to the RGP spontaneously; 45% of the teams met two of the conditions (distributed equally between PAHO-instigated and spontaneously submitted projects). The teams that participated in projects instigated by PAHO revealed a lesser degree of stability than the teams that participated in spontaneously submitted projects, since 67% of the teams that met only one condition (19% of the total) participated in PAHO-instigated projects and 60% of the teams that did not meet any of the conditions (11% of the total) were also teams that carried out projects instigated by the Organization. By country the research teams revealed different levels of stability. Brazil and Cuba stood out as the countries that, comparatively, had the most stable teams.

c) Dissemination of the results

i) For 62% of the studies about which information was obtained, the results were disseminated in the form of mimeographs, primarily to the libraries of research and teaching institutions. The results of 85% of the studies were presented at national or international conventions and/or national scientific meetings, and the result of 38% are to be presented again at some event scheduled during the next twelve months.

ii) With regard to the production of publications, 47 of the research projects about which information was obtained yielded a total of 87 scientific articles published in national and foreign journals and 7 books, as the direct outcome of the research considered. Publications resulted from 70% of the projects (the remaining 30% did not give rise to any published material). Of the first group (33 research projects) 15 resulted in 1 article, 7 in 2 articles, 1 in 3 articles, 2 in 6 articles, 1 in 7 articles, 1 in 9 articles, and, finally, 1 resulted in 15 articles. The research also led to 7 books, 6 of which have been published and one was in press at the time the information was gathered. With regard to the distribution by country, or particular note is the case of Argentina, where, except for one case, all the studies carried out resulted in publications, including 36 articles and 4 of the 7 books mentioned above. At the other extreme, most of the projects in Cuba did not lead to publications. It is noteworthy that in Mexico all of the research findings were published in the form of articles (between 1 and 6 articles per project), while in the case of Brazil the results of 23% of the projects were not published. As for Venezuela, 2 of the 4 research projects were not published, but the other two produced 2 books and 1 article.

In terms of size of the projects, all of the research for which PAHO provided less than 50% of the funding from outside the sponsoring institution gave rise to the publication of articles. The publication of books in all cases originated from research for which PAHO provided 100% of the financing.
With regard to publication of the results of PAHO-instigated or spontaneously submitted the projects, the minority (31%) of the articles that were published pertained to PAHO-instigated projects, whereas most (69%) pertained to spontaneous projects. With respect to the books, 4 pertained to PAHO-instigated projects and three to spontaneous projects.

In terms of subject area, the number of articles is very closely related to the number of responses received, which means that conclusions cannot be drawn for the time being. Nevertheless, it should be noted that the area of "labor force in health," according to the responses receive, resulted in 16 articles and 4 books, that is 18% of the articles and 57% of the books that were produced. It should be taken into account that a determining factor in the number of articles produced in this subject area was the relative weight of one research project that led to 9 articles. The same holds true in the case of "growth, development, and human reproduction process," with 7 articles per project; "labor force in health," with 2.29; and "organization of health systems and services, with 1.88. In the case of "labor force in health," as mentioned previously, there was a very high average production of books, at 0.57 books per project.

d) Usage of the results

i) In 68% of the cases the investigators did not know whether the research had been cited by other investigators as reference bibliography, while in 32% of the cases this information was known, at least in part. All of the research known to have been cited by other investigators was published as a book or article. In no case was research cited that had been disseminated in the form of mimeographs. In most of this group (80% of the cases in which research was known to have been cited) the research had not been cited by members of the research team, but rather by other investigators. From the country standpoint, taking into account those countries for which information was available, the research carried out in Brazil was most cited in other studies, trials, or publications (or at least the investigators had more information in this regard), while, at the other extreme, Argentina and Mexico were the countries whose research was the least cited or the investigators had the least information in this regard.

ii) In 62% of the cases the investigators did not know if their research had been used in countries other than the country where the research was done. Most of the remaining 38% that had information on use of their research in other countries (83% of that group) had learned of it at international meetings supported by PAHO. Mexico is the country with the most information on use of research conducted in Mexico in other countries (4 out of 5 research projects).
iii) According to the information available to the investigators, only 28% of the research had not been used as bibliography in undergraduate or graduate school programs and/or in graduate-level programs not affiliated with universities. The rest was used as bibliography in all or some of the following ways: a) by members of the research team (79% of the research used in teaching), b) by educators who were not part of the research team but were affiliated with the sponsoring institution (59% of the research used in teaching), and c) by educators who did not belong to the research team or the sponsoring institution (59% of the research used in teaching). It should be noted that when looked at in a different way, 42% of the total research completed for which information was available was used in teaching activities by professionals who did not participate in the studies or who did not work at the sponsoring institution. This indicates a significant level and degree of usage of scientific production.

On a country basis, all the countries on which information was obtained revealed the expected degree of usage, from more to less; that is, the research was used in teaching mostly by the members of the team, followed by members of the sponsoring institution, and then by other educators who were not part of the team or of the sponsoring institution. This was true with the exception of Argentina, where the use of research by educators not directly connected with the team or the institution used the research more than in the rest of the categories.

The spontaneously submitted projects were, with only slight variations, those that were most used on average in undergraduate or graduate programs (0.74 compared to 0.67 of use in teaching per PAHO-instigated project).

From the standpoint of subject area, it was observed that significant use of the research occurred in all the areas (excluding those areas in which only one or two projects were carried out). The areas of "health profiles" and "labor force in health" are the ones with the highest average use of research by educators who do not belong to the research teams or the sponsoring institutions (an average use of 1 and 0.86 in teaching per project, respectively).

iv) As indicated by the respondents, 64% of the research was used in research institutions other than the sponsoring institution. In most of the countries this was a preferred area for the use of results (all of the projects of Venezuela, 4 of the 5 of Mexico, 5 of the 6 of Cuba and 9 of the 13 of Brazil), with the exception of Argentina (where only 4 of the 10 projects are used by other institutions, as reported by the investigators).
Another significant point is that all research in the area of "organization of health systems and services" (4 spontaneously submitted projects and 1 PAHO-instigated project), 86% of the research on "labor force in health" (of the total of 7 research projects, 4 of the 5 PAHO-instigated projects and 1 of the 2 spontaneously submitted projects), and 57% in the area of "organization of environmental sanitation systems and services" (1 of the 1 PAHO-instigated research projects and three of the five spontaneous projects) was used by research institutions other than the sponsoring institution.

v) To the extent to which information was obtained, the 47 research projects considered in this preliminary study gave rise to eight master's theses and 22 doctoral dissertations in various fields of knowledge in health. This indicates a high degree of usage of the results in human resources training. Theses were the an outcome of 36% of the projects, while the remaining 64% did not result in graduate-level theses. The master's degree theses were in the areas of public health (2), public administration (2), biology (1), biochemistry (1), and medicine (1). The doctoral dissertations were in medicine (16), biology (2), social development (2), health economics (1), and psychophysiology (1).

Cuba is the country with the highest average number of theses produced, with 0.83 per project completed; 4 of the projects carried out in that country gave rise to doctoral dissertations and 2 did not. Cuba is followed by Argentina with an average of 0.67 (but here once again attention must be drawn to the fact that a single project gave rise to 7 doctoral dissertations, which means that if that project is excluded only 1 resulted in a doctoral dissertation), with 7 projects (70% of the total of Argentina) that yielded neither a master's thesis nor a doctoral dissertation. In Brazil, the average number of doctoral dissertations per project was 0.38 (including 1 project that led to 4 dissertations and 1 project that resulted in 1 dissertation), and an equal average number of projects that resulted in master's theses, with 54% of the projects resulting in neither master's theses nor doctoral dissertations. Only 1 of the projects carried out in Mexico on which information was obtained led to a doctoral dissertation, while 2 of the 4 projects of Venezuela led to dissertations. With regard to whether the projects were PAHO-instigated or spontaneously submitted, the spontaneous projects yielded 90% of the doctoral dissertations and half of the master's theses.

In terms of the association between degree of stability of the team and usage of the results, it was observed that the "unstable" teams (i.e., those that met only one or met none of the preestablished conditions) did not in general produce research that was subsequently used for a thesis or dissertation.
As concerns subject areas with respect to the production of theses, the average numbers of theses per project were: growth, development, and human reproduction process, 2 theses per project; health and disease in the adult population, 1.66; organization of environmental sanitation systems and services, 0.57; organization of health systems and services, 0.40; and labor force in health, 0.29.

vi) In general (80% of the cases), the investigators did not have any information as to whether or not PAHO used the results of the research; those investigators who were aware of PAHO units that had used the results (20%) usually were not able to specify the PAHO activities in which these results were used or whether their research furthered technical cooperation processes in some way.

vii) The investigators indicated that the areas to which the knowledge and/or technology produced in the research was transferred were: a) 81% of the results of the projects was transferred to ministries, secretariats, or other government agencies; b) 62% to public health services; c) 22% to unions or professional associations; d) 15% to private health services; and e) 13% to nongovernmental agencies, local associations or other community associations.

2. Projects that were found not to have had any impact

Based on the criteria considered and taking into account the indicators of dissemination and usage of the results—including publication, use in teaching, production of master's theses and doctoral dissertations, and use of results by research institutions other than the sponsoring institution—if the 10 projects for which no positive responses were found in any of the categories mentioned are grouped together, several patterns surface. Specifically, of the projects with the least impact, 8 were PAHO-instigated and 2 were spontaneous submissions. Except for 1 project (which, in addition, did not meet any of the conditions of stability of the research team, all of the projects were approved in 1985 or 1986. None of the research teams on these projects met three of the four conditions for stability, with most of them meeting only one or none. Finally, 8 of the projects were completely funded by the RGP.

This would appear to show that frequently projects undertaken at the instigation of PAHO are not carried out by research teams that meet the essential conditions to produce high-impact research, while the information on degree of stability of the team would appear to indicate that an association exists between impact and stability only when the teams meet one or none of the conditions indicated. No association seems to hold in other respects.
3. Opinions on the grant received

Among the opinions expressed by the investigators on the grant received, four groups can be identified, with no variation by country, subject area, or date of approval of the projects. These four groups could be placed on a continuum of opinions ranging from favorable to unfavorable: those investigators who thought favorably of the technical and administrative aspects of the grant received; those who thought favorably of the technical aspects but unfavorably of the administrative aspects; those who, in contrast to the previous groups, encountered technical but not administrative problems; and, finally, those who identified significant obstacles in both aspects and presented unfavorable opinions. Most of the responses fell into groups (a) and (d) (with a total of 16 and 20 responses, respectively), with fewer of the total responses in (b) and (c) (6 and 5, respectively), the latter group consisting of various combinations of the favorable and unfavorable opinions identified in (a) and (d).

a) Favorable Opinions

i) On the administrative side, the favorable opinions are based on the perception by the investigators that the activities of the projects were carried out as scheduled (notification of approval, remittance of funds, exchange of currencies, shipment of equipment), and that the PAHO/WHO Representative Offices tended to facilitate these procedures by expediting communications with Headquarters with regard to the submittal of proposals and partial and final reports, the search for responses, speed in the transfer of funds allocated, and acquisition of specific bibliography requested by the research team.

ii) On the technical side, more important than the role of the Representative Offices was the role of the technical programs, which, in the opinion of the investigators: (a) supported the preparation and/or adjustment of the research design, provided theoretical-methodological guidance during the execution of the project through various monitoring mechanisms (visits to the site or meetings to monitor the projects) and/or supported the identification and acquisition of the specific bibliography required for the projects. Another point highlighted as an aspect of significant support to the research process was the provision by PAHO of technical advisory services for solving specific problems (mainly methodological problems) and in the coordination for evaluating the various stages, through the mechanism of visits to the site by PAHO consultants or international meetings of investigators.
b) Unfavorable opinions

i) On the administrative side, the obstacles encountered by the investigators were, in order of importance, delay in receiving the grant funds and in awarding contracts for the supplies and equipment procured with the funding granted, and, lastly, misplaced documents in PAHO (proposals to be evaluated, progress reports, or final reports). The delays experienced by the research teams in receiving funds are attributable to delayed transfer of funds by PAHO and in part to administrative inefficiency of the sponsoring institutions.

With respect to the role of the PAHO Representative Offices in administrative aspects, the delay in releasing the funds remitted from Headquarters was stressed, with the resulting loss of purchasing power under situations of inflation and hyperinflation, slowness in transmitting the research results to Headquarters, and the lack of advisory services for preparing the accounting statements requested by HDR.

Other problems were the ceiling on the amounts of the grants (which apparently made it necessary to reduce the scope of some projects) and the stipulation that the principal investigator cannot receive remuneration out of the grant funds.

Finally, some of the investigators who conducted research between 1985 and 1988 indicated that they had not been aware of what course had been taken by research proposals submitted, since they had not been informed by the corresponding Representative Office whether or not the proposal had been received at Headquarters, or evaluated and approved, until they had received official notification in the case of projects that were approved.

ii) The problems cited by those investigators who expressed negative opinions regarding the technical aspects associated with the grants received were, with respect to technical cooperation, the lack of guidance on designing the projects, and the lack of timely guidance in solving theoretical-methodological and technical problems relating to the research that could not be resolved at the level of the research teams or the sponsoring institution. A number of investigators pointed out that it was difficult to achieve an effective exchange with other groups of investigators and institutions working on the same topics within and outside of the country in which the research was done. Another problem identified was the lack of mechanisms for exchanging and using the results of the research produced. Several mentions were made of the difficulty experienced by the teams in finding out about and obtaining specific bibliography available in countries other than the country where the research was done. This problem was associated with PAHO, since supposedly PAHO had the logistic means to increase access to bibliography. Also underscored was the lack of
feedback from PAHO regarding contributions and limitations, both of the progress reports and the final reports on the study. This problem was associated with the lack of an evaluation of the results of the research and the quality of the knowledge produced. Finally, it was noted that there was a lack of support from PAHO for dissemination (publication and distribution) of the results of concluded research projects evaluated as being pertinent and of high quality.

III. IMPACT ON PAHO OF THE RESEARCH FUNDED BY THE RESEARCH GRANTS PROGRAM AND THE FACTORS THAT CONDITION OR DETERMINE THAT IMPACT

The objective of this chapter is to identify within the Organization those factors that favor or hinder the promotion of pertinent high quality research through the RGP mechanism, as well as the use of the results in the corresponding technical programs.

The order of presentation is the following: first, the elements contributed by those surveyed for constructing a definition of the impact of the research on PAHO are listed. Second, a typology is presented of the impact obtained through research financed by the RGP in accordance with the variables that determine it. Third, the factors are presented that condition or determine the impact of the research financed by the RGP on the technical cooperation process. Finally, the factors are presented that favor or hinder the promotion of research through the RGP mechanism.

A. METHODS USED IN COLLECTING AND ANALYZING INFORMATION

The information was obtained basically from the 23 focused interviews carried out between 25 January and 12 February with all the coordinators of the technical programs that supported RGP-funded research, with the consultants responsible for promoting the 14 subject areas defined by the programs for the RGP and some consultants engaged in the area of research at Headquarters (both in the technical programs and in the former DRC).

B. ELEMENTS FOR DETERMINING THE IMPACT OF RESEARCH ON PAHO

It is understood that a research project financed by the RGP and promoted by the corresponding technical program has an impact on PAHO if it is able to influence the orientation of technical cooperation. This influence can be expressed in matters related to use of the research findings to strengthen a specific field of knowledge and/or in matters relating to the application of results.
Based on the information obtained from those surveyed, the following factors are considered most important for assessing whether or not the research has had an impact on the Organization:

- whether or not it suggested a new field of knowledge or a specific subject area of priority interest for PAHO or it revealed the importance of considering crucial subjects or specific aspects of those areas not defined as such up to now;

- whether or not it made possible the methodological development and design of research that can be duplicated or it contributed to the production or enrichment of explanatory models that PAHO might be able to promote;

- whether or not the research contributed to the production of methodologies and information needed for improving the understanding of the health situation and the systems of medical care in the Region that will enable PAHO to update such information on a regional basis;

- whether or not the knowledge produced helps in analyzing the relationship between the health situation and the systems of medical care in reference to decision-making regarding those systems such that it makes it possible to identify new actors in the technical cooperation process;

- whether or not the results of the research may lead to the definition of new strategies for the Organization or enrich the existing strategies;

- whether or not the results of the research, after they have been disseminated in the Region, may support the definition of governmental or nongovernmental health policies at the regional, national, and local levels;

- whether or not the results of the research, after they have been disseminated in the Region, may support the definition of regional and national science and technology policies;

- whether or not the results of the research and/or the methodologies were incorporated into the human resources development activities of the staff of the Organization, as well as the activities that PAHO promotes in the Region in this area (international courses, seminars, meetings);

- whether or not the results were useful for defining new criteria or producing standards for health promotion and/or prevention and treatment of diseases, or for
developing appropriate technologies that might be duplicated and that PAHO might promote; and finally

- whether or not it contributed to altering the perceptions of the Organization's staff on the technical cooperation process or on the actors involved (at the institutional and population level) which might lead to the definition of new forms of work in the medium term.

C. PRESENTATION OF THE RESULTS

1) Impact of the research projects funded by the RGP on the programs that promoted them

The impact of the research financed by the RGP and supported technically by the programs varies not as a specific function of the responsible technical program but of three main elements: whether or not the research was PAHO-instigated or spontaneously submitted, the quality of the research, and the capacity of the programs to use the results obtained. These elements taken together make it possible to identify several levels of impact and reveal that approximately 39% of the research completed has had an impact on PAHO and 61% has not (or it was not possible to obtain sufficient information to determine the impact). The research projects can be divided into the following four groups based on their level of impact as determined by several factors.

a) **High impact as determined by the combination of PAHO-instigated high quality research projects and the capacity of the technical programs to make use of the results.**

This group, which represents approximately 31% of the total research projects completed, is composed of research projects considered by the technical programs to be of high quality, in terms of the project presented as well as the results obtained. Added to this is the fact that this research was instigated by PAHO, which was involved in defining the problems to be investigated, as well as in supporting the promotion, formulation and execution of the projects. Finally, there is the additional fact that this research was promoted to answer questions raised by the programs themselves, and it was generally known what results could be expected, how they would be used, and how the knowledge gained would be applied.

The research projects with these characteristics are generally those that were singled out by the technical programs as having the greatest impact on PAHO. Accordingly, the programs have seen the final reports and are aware of the activities
or aspects of technical cooperation influenced by the research. Information is usually available on the principal investigator and the participating group after the research has been carried out. These are also the research projects concerning which the technical programs have the most information on their impact at the national levels. This does not necessarily mean these have been the research projects that have had the greatest impact on the countries of the Region, but rather it indicates that the technical programs are usually well-informed on the use and application of the results.

b) **Low or zero impact as determined by the combination of spontaneously submitted projects and inability of the technical programs to use the results obtained.**

This group represents approximately 37% of the total research completed and comprises the vast majority of the projects that were submitted spontaneously. Added to the spontaneous nature of the projects is the impossibility by the technical programs to make any use of the results obtained. This occurs regardless of the quality of the research, which cannot be determined from the information available in the programs because the final reports and the results obtained are generally not known. The contact by the technical programs with the research project is limited to the process of technical review of the project by the pertinent program. The subsequent steps undertaken in the project were usually not monitored or followed up, nor did PAHO evaluate the results obtained. Added to this separation between the execution of the research and the technical programs is the fact that the subjects dealt with by the research did not respond directly to the essential priorities of the technical programs, despite the fact that they are obviously generally within the priorities defined in the 14 subject areas or they would not have been approved by the technical programs to which they were submitted for appraisal.

c) **Zero impact as determined by the combination of PAHO-instigated research and capacity of the technical programs to make use of the results with low quality of the results obtained.**

This group represents approximately 24% of all of the research completed. It shares two elements with the first group, namely, the directed nature of the projects and a predefined expectation with regard to use of the results by the technical programs. It differs from the first group, however, in that the research did not attain the quality expected. This occurred despite the fact that in most of the cases all of the stages were monitored, from support in drawing up the projects to evaluation of the results by PAHO.
In the execution of this research various kinds of problems were encountered. Most of the research projects had methodological limitations that hampered their execution and did not make it possible to obtain reliable results. Another problem that appeared frequently was the instability of the research teams, particularly as a result of formal or informal resignation or removal of the principal investigator. Finally, a few cases were affected by the political instability in the country where the research was conducted, which prevented the project from being carried out as planned.

The projects in this group did not have any impact on PAHO and the technical programs lack information as to whether they had any impact at the national level. The technical programs usually see the final reports of this research group and have information on the research teams and on the major problems encountered in the execution of the project. They also have an opinion on the determining factors that made it difficult to obtain consistent results.

d) High impact or expectation of impact as determined by the high quality obtained by some spontaneously submitted research projects, together with the ability of the technical programs to make use of the results.

This group, which represents 8% of the research completed, includes research of a spontaneous nature, as in the second group. It differs from the second group in that the research answered some of the priority questions raised by the programs. For this reason, the programs were able to take advantage of the results obtained in the short term. The use of the knowledge produced was also determined by the quality of the research, since only the research deemed to be of high quality by the technical programs had some likelihood of being utilized and incorporated into technical cooperation activities.

In general the technical programs have detailed information on the characteristics of the projects in this group. These projects were generally not monitored by the technical programs, but the final reports were seen and an opinion exists as to the quality of the results. Accurate information on the contribution of each research project to the corresponding technical program is also available.

2. Factors that condition or determine the impact on the technical cooperation process of research funded by the RGP

The factors that determine or condition the impact on PAHO of research projects supported technically by the programs and funded by the RGP are many and varied. A few of them are mentioned below:
a) Subject relevance of the research completed and research priorities

One of the factors that seems to be directly related to the degree of impact of the research on PAHO is the level of adaptation of the specific research topic to the priorities formulated by the programs. This presents an apparent contradiction, since, in the first place, the technical programs defined the subject areas and defined the research priorities for each one of them (as shown in the document "Investigación en salud: áreas temáticas y tipos de investigación" [Health Research: Subject Areas and Types of Research], DRC/3686, 1988). Added to this is the fact that the programs are the ones responsible for the technical review of the projects. This means that every research project completed has been approved by the corresponding program, which examined the relevance of the subject and the theoretical-methodological consistency of the project before it was considered by the IACR.

There are several explanations for this apparent contradiction. First, the priorities defined in the subject areas, as prepared by the programs in coordination with DRC, are considered as a whole to be extremely general and in some cases not adapted to the research priorities currently espoused by the programs. Second, an analysis of subject relevance in relation to areas thus defined makes it possible to consider many projects appropriate that in fact do not respond to the most important problems facing the programs. Third is the degree to which projects are asked to adapt in order to be in line with the priorities defined, since they can adjust, but not to the extent necessary in order to increase the likelihood that a research project will have high impact within PAHO. Such high-impact projects are generally those that produce results that the programs are able to use in the short term because the research answers a question raised beforehand by the program. In other words, the production of knowledge results from the confirmation or rejection of previously formulated general hypotheses, or the knowledge generated fills recognized conceptual or information gaps.

Taking into account these elements, which not only affect the impact of research funded by the RGP, but also other research supported by PAHO, some programs have begun to redefine their research priorities in general. Nevertheless, in any case it will be necessary approach the definition of priorities in relation to the RGP, because when research priorities are mentioned a distinction has to be made between those that are defined in relation to the scope and limitations of a program such as the RGP and the research priorities of each technical program, since in some cases the two aspects do not coincide. The fundamental reason is that in some subject areas several specific characteristics are involved: in the first place, priority research projects in some cases are supported by funding agencies with a large investment; in other cases there is an installed capacity in the Region for covering that research; in
others there are specialized agencies with a large financial capacity or multinational networks that have proven common instruments of investigation, and research methodologies and teams for promoting priority research. In the second place, in some cases PAHO has specialized centers that are in a position to conduct research on the priority problems specified by the program. In these cases, the RGP is identified as a program that can promote the development of nontraditional areas, especially those requiring explanations of an interdisciplinary nature and contributions of knowledge produced in others subject areas.

b) **PAHO-instigated and spontaneously submitted projects**

The factor that appears to be the most important determinant of the impact on PAHO of research is whether the project was undertaken at the instigation of PAHO or was submitted spontaneously by the investigators concerned. PAHO-instigated projects were promoted from within the Organization, with the objective of obtaining usable results in the short term. These projects were generally closely monitored during their execution and their results were also extensively evaluated. The programs committed themselves to this type of project right from the time that the purpose of the study was defined and the research teams were identified in the Region. For this reason, all the PAHO-instigated projects were determined to be relevant in terms of their subject matter.

As was previously pointed out, the only obstacle to using the results of this type of projects that emerged in some cases was that the desired quality was not always achieved.

The opinion generally held (taking into account all the opinions expressed) is that the RGP should give more weight to PAHO-instigated research, whether or not it is multicentric in nature. This agrees with the recommendations made by the Research Coordination Unit in document ACHR 28/91.7 presented to the XXVIII Meeting of the Advisory Committee on Health Research in August 1991.

No general opinion was obtained with respect to the spontaneously submitted projects. In some cases it was recommended that they be maintained, as some of them could reveal the importance of a subject or an approach not considered by the Organization, whereas in other cases it was suggested that this type of project should compete for existing funding from other agencies or organizations.
c) **Monitoring of the projects**

Another element that affects the impact of research on PAHO is the lack of monitoring of most of the research projects. This is related in large part to the fact that in recent years most of the projects have been spontaneous submissions. The lack of any monitoring of this type of projects extends to the stage of evaluation of results, and this is one of the reasons for the lack of knowledge about the results of these projects in the programs.

In theory, monitoring of research projects has been a responsibility of the technical programs, but there are a number of points here that should be noted: a) the programs have not defined the objectives and mechanisms for monitoring the execution of spontaneous projects and there is no preestablished mechanism in the RGP; b) the programs do not have the necessary human and financial resources for monitoring proposals that are viewed as fragmentary and of limited interest and would entail an outlay of resources for the monitoring process that would exceed the amount of the grant provided to the research team; c) when there has been monitoring of spontaneously submitted projects it has been due more to personal enthusiasm on the part of the consultants than the existence of mechanisms that make it possible to carry out this task.

As previously pointed out, it is the PAHO-instigated research projects that have generally been monitored in a steady manner by the technical programs. The most-used mechanisms for monitoring projects in execution were meetings to assess progress and evaluate results, most of which had been preceded by meetings for the preparation of projects, as well as visits by PAHO consultants to the research groups.

The monitoring of PAHO-instigated research has also posed the problem of the great investment in human and financial resources that is required to carry it out it with the necessary rigor, which has not always been compensated by the acquisition of usable results because, as previously stated, the desired quality was not achieved.

d) **Awareness and evaluation of the research results**

Once again, whether or not the technical programs learned of and evaluated research results seems to be related to whether the projects were PAHO-instigated or spontaneously submitted. In general, the results of the PAHO-instigated projects are known by the technical programs and an opinion exists on their quality and usefulness. In several cases, the process of evaluation of results was carried out jointly with the investigators, through meetings specifically held for that purpose. No administrative or technical problems arose with this type of projects that prevented
the technical programs from seeing the final reports. Conversely, in the case of the spontaneously submitted projects, accurate information is generally lacking in the programs on the results. It is with this type of project that greatest problems have occurred with the programs gaining access to the final reports of the results. These problems range from the lack of copies of the reports in the technical programs to the lack of mechanisms for evaluating the results that would make it possible to identify the quality of this type of research and its degrees of usefulness.

Most of the administrative problems cited by the programs also had to do with spontaneously submitted projects, such as for example the delay in gaining access to the final report.

e) Quality of the research findings

The quality attained by the research project determines whether or not PAHO will be able to utilize the results. It is unlikely that research that does not meet the requirements for quality will have any impact on the orientation of technical cooperation. The term quality, as it is used here, does not refer solely to the consistency of the research, the theoretical-methodological coherence, and the fulfillment of the objectives proposed in the projects, but also extends to presentation of the results. This means that one of the elements hampering the use of research in the technical programs, even when this research has attained the desired quality levels, is that frequently the final reports submitted to the Organization by the research teams do not constitute a presentation of results in the strict sense of the term, but rather a description of the activities carried out at the various stages of the project. Thus, the technical programs generally do not become aware of the results, which, after the research comes to an administrative conclusion, are rarely presented.

f) Ability of the technical programs to incorporate the results of research

Finally, although the research fulfills the necessary conditions for producing a favorable impact on the technical cooperation process, the extent to which the programs incorporate the contributions made by research tends to be directly proportional to the extent to which the projects respond to priority questions, as described above.

The programs are generally able to disseminate the results of the research among their counterparts in the Region, utilizing the existing networks in each subject area (every technical program usually has more than one established network that facilitates the dissemination of information). This ability to disseminate is only
one component of the technical cooperation process. The rest of the components that were listed at the beginning make the incorporation of results much more complex and it is in this area that the greatest difficulties are encountered with regard to implementation.

In other words, it is in the component of dissemination that the results of research projects funded by the RGP have been mainly used. This holds true for all the programs that have been able to use the results of the research produced in the subject areas corresponding to them, which is evidence of the capacity that has been developed in this area. The remaining components are related to the spontaneous or PAHO-instigated nature of the projects. The results of the former, with the exception of a few, are hard to incorporate. In contrast, the technical programs have the ability to incorporate the results of projects instigated by PAHO in one way or another depending upon whether the intent is to contribute to a specific field of knowledge, develop explanatory models and methodologies for analysis, increase the information available in an area, contribute to the definition of the Organization's strategies, support the formulation of governmental or nongovernmental policies, produce new standards, develop technologies, or define new approaches to the technical cooperation process.

3. Factors that favor or hinder the promotion of research through the RGP mechanism

A number of problems are noted that are affecting in different ways the promotion of research through the RGP mechanism. Some of these problems were cited by the majority of those consulted and others reflect different positions on some critical issues.

a) Different perceptions on the aim of the RGP

One of the questions that seems to be critical, and that would largely explain the existence of contradictory positions with regard to the RGP, is the subject of the priority objectives assigned to it. Basically two stances can be distinguished regarding the aim of the RGP: the first is expressed in PAHO Directive 88-06, which defines the characteristics of the program; the second is supported by the principle that every activity of the Organization should be aimed at strengthening the capacities of those with whom it works. These two stances basically summarize the views expressed by those surveyed. The first stance holds that the aim of the RGP should be to promote research that will help to solve the most important health problems. This is stated in the aforementioned Directive as follows: "... research is fundamental component of technical cooperation that contributes to its reorientation and enhancement
through the incorporation of new knowledge. With regard to its objectives, the Grants Program should: promote the organization and integration of knowledge in health and facilitate its inclusion in social practice; provide a tool for the promotion of research that contributes to the solution of priority health problems in which the Organization concentrates its principal lines of action; be a mechanism for coordination between Technical Programs and the various management levels of the Organization" (see Annex 1).

According to the second stance, the RGP should emphasize the strengthening of research capacity in the Region over the production of knowledge aimed at solving priority health problems. This strengthening would mean placing greater priority on seeking to have an impact on the development of a community of investigators in the countries of Latin America and the Caribbean. From this perspective, the necessary condition for producing research aimed at solving priority health problems is the prior existence of human resources capable of recognizing those problems. The mission of the Organization and, along with it, the mission of the RGP would be to strengthen the scientific community. This would include development of the academic level, organizational development, and a number of actions to involve that community in decision-making processes.

These two stances have a point in common, namely the view that the production of knowledge is closely linked to human resource development. That is to say that the definition of a strategy in the first area requires strengthening the second. The difference between the two stances resides in the role that is attributed to the RGP. While the first perspective considers that the RGP is part of a research policy of the Organization that envisages human resource development in others of its components, the second holds that this function should be the primary concern of the RGP.

b) Concentration of the projects approved in a few countries

The foregoing discussion, whether or not it is included explicitly in many of the controversies over the RGP, is also contributing to the perceptions regarding the research teams that receive support from the technical programs and the RGP. Again, two stances can be identified: the first considers that the RGP should ensure the production of high quality knowledge, usable in the short term for the technical cooperation process; the second considers that the RGP should actively promote the development of research among groups, institutions, and countries that up to now have generally not benefitted from grants. According to this viewpoint, the grant monies awarded could be used as a seed fund for the development of capacities. These two perspectives do not differ in their assessment of which countries of Latin America
and the Caribbean have the institutions that are best equipped to carry out priority health research, but in their opinion of whether or not the RGP should help strengthen that situation.

c) **Low rate of project approval**

The low rate of approval of research proposals submitted for funding under the RGP is another of the factors that tends to be looked upon as a determinant of the extent to which the technical programs are willing to promote the RGP. Even though it is the technical programs, in their initial review, that reject approximately half of the proposals presented to PAHO for funding through the RGP, it is the IACR's role in this process that tends to be most remembered.

Apparently, the programs' willingness to undertake promotion of the RGP has been declining owing to the difficulty in identifying and promoting groups, within the operational limitations of the programs, that are able and interested in formulating projects as required by the RGP. The point that seems to be critical is not the stringency of the IACR's requirements for project approval—as those requirements are generally deemed acceptable—but rather the different views on the role played in the review process by those involved in the promotion of research within the technical programs.

In other words, on the one hand there are those who hold that the process of evaluating proposals should be completely separate from activities relating to research promotion and initial support in formulating projects. Under this view, the argument that predominates is that objectivity will be enhanced if those who evaluate a proposal did not participate in the process of identifying research groups and formulating proposals. On the other hand, there are those who maintain that there is a very high degree of specificity in the theoretical, methodological, and instrument requirements for research projects in the various fields of knowledge and that the participation in the evaluation process of those involved in research promotion would help to encourage the inclusion of a wealth of approaches that are not so traditional or highly specific.

One aspect associated with the issue of the low rate of project approval is the assessment that is made in the programs on the promotion of projects for financing under the RGP. A criterion of efficiency predominates in this assessment, which includes several elements: a) the programs in general have resources for research exceeding those available through the RGP for each technical area, b) the programs have decision-making power with respect to the administration of those resources, c) the regular funds of the programs for supporting the promotion and monitoring of
projects are insufficient to cover all projects, d) in the case of spontaneously submitted projects, promotion and monitoring would cost more than the grant provided to the research teams.

d) Administrative aspects entrusted to the technical programs, the RGP, and the PAHO/WHO Representative Offices

Some administrative factors appear to be conditioning the process of generating, formulating, and approving projects, as well as the stages of execution and evaluation of results. The perceptions of this process differ and affect the technical programs and the RGP in a different manner: One of the problems perceived is the time that elapses from when the projects are presented in the respective Representative Offices until they are actually funded. This delay is attributed variously to the time it takes the Representative Offices to handle the various stages, the time spent by the technical programs reviewing the projects, and the time taken by the RGP in evaluating the proposals and releasing the corresponding funds.

Another issue perceived as a problem by those surveyed is the ceiling on the amounts of the grants and the fact that the principal investigator is not remunerated out of grant funds. Still another perception has to do with the role played by the Representative Offices as facilitators of the promotion and monitoring process (in which the administrative area is an important aspect) as a function of whether or not the technical program in whose area the proposal falls has a consultant in the Representative Office who, in addition to being in contact with the research teams, is able to streamline the institutional procedures.

IV. SUMMARY

Despite the fact that additional information needs to be collected in order to accurately describe the distribution of completed research projects on the basis of the criteria defined, this preliminary report highlights some noteworthy issues:

1. The RGP supports the execution of research projects that, for the most part, do not have any funding other than that contributed by the sponsoring institutions. The grant is generally not used for training members of the teams and only contributes towards the purchase of bibliographic materials in a small portion of the projects. In cases in which the grant was used to buy equipment (which was indicated in approximately one third of the responses) this helped to enhance the equipment of the sponsoring institution.
2. The stability observed in the research teams who worked on projects submitted spontaneously to the RGP was greater than that of the teams who participated in projects instigated by PAHO.

3. Most of the research resulting in publications was disseminated in the form of mimeographs, and presented at national or international conventions and/or at national or international scientific meetings. Most of the projects that gave rise to publications were spontaneously submitted projects.

4. In most of the cases the investigators did not know whether or not their research had been cited in other works, or used in countries other than the country where the research was conducted, or used by PAHO. In contrast, in most cases the investigators knew that their research had been used as bibliography in undergraduate and graduate programs and/or in graduate programs not connected with universities. Close to half of the research was used by educators who did not belong to the research team or the sponsoring institution. A large number of investigators indicated that their research had been used by research institutions other than the sponsoring institution, which would appear to signify that this scientific production has had quite a far-reaching impact. Moreover, approximately one third of the research--generally the spontaneously submitted projects--led to the production of graduate theses, particularly doctoral dissertations in the field of medicine. The areas that received the research results, as indicated by the investigators, were, first, the ministries, secretariats, or other government agencies, followed by public health services. It should be noted that the PAHO technical programs have not, in most cases, utilized the knowledge produced by the research projects considered. In cases where the research is used, the projects generally involved are PAHO-instigated projects, the subjects of which address the research priorities of the programs. In addition, the programs monitor more closely the formulation and execution of such projects.

5. Two central features of the projects that were found not to have achieved any impact were that they were PAHO-instigated and the research teams showed a relative lack of stability (based on the information extracted from all of the indicators for which data were obtained).

6. A small majority of the responses indicated that the obstacles encountered in the course of the research conducted could be attributed to technical and administrative aspects of the grant. It should be noted that a number of investigators called for PAHO to play a more active role from the point of view of technical cooperation in the development of subsidized research. In the
cases in which the Organization had in fact played this role, the investigators consider it to be one of the main positive features to be pointed out. The need for PAHO to play a more active role in this regard was also indicated by the staff at Headquarters who were surveyed. The Organization appears to be significantly restricted in its ability to fully carry out this function, however, by resource limitations. Despite these limitations, in approximately half of the cases there was a definite interest by the research teams in obtaining a new grant.

7. There are a number of factors that are making it difficult for the technical programs to promote research through the RGP mechanism. They include the different perceptions as to whether the aim of the RGP should be to foster the production of knowledge intended to solve the priority health problems of the Region or if, conversely, it should be to promote the development of research capacity among the most disadvantaged sectors of the Region. Those who espouse the second viewpoint generally question the concentration of approved projects in a few countries and the low rate of approval of the projects submitted.

8. Among the recommendations made for solving the problems identified by the two groups surveyed, there are a number that appeared repeatedly in the two groups (at least among one third of the PAHO staff members surveyed and among one fifth of the investigators) that have to do with technical and administrative aspects of the grant.

The technical aspects are: a) Redefinition of the subject areas and a more specific definition of priorities for the RGP; b) mobilization of investigators to serve as technical advisors in formulating the design of research to be carried out by teams submitting proposals that are considered timely and potentially of good quality; c) monitoring of projects, aiding the investigators in solving specific problems of a theoretical-methodological and technical nature that arise, in addition to reviewing the progress reports so that, with the recommendations suggested, the quality of the final report can be improved; also, evaluation of the final report on the research, with recommendations for improving the quality of the presentation of the results with a view to their publication; d) possibly training a member of the team in specific aspects related to the project through attendance at seminars or visits to research institutions; e) publication of the results of studies that make a significant contribution towards explaining the health problems of a country and/or contribute to a field of knowledge.
With regard to the administrative aspects, the recommendations were as follows: a) greater dissemination of PAHO's research priorities in the research institutions of the Region; b) administrative streamlining of the procedure for evaluating projects and processing grants, starting with the provision of up-to-date information to the research teams concerning the status of the review of the project submitted, the technical program that is undertaking the review, tentative dates and the official date on which the team will be notified of the result of the review, and timetable for the remittance of funds (if the project is approved); c) establishment or strengthening of mechanisms to expedite the remittance of funds and the delivery of equipment within the established time frame; d) revision of the ceiling on grant amounts and the provision whereby the principal investigator cannot receive any remuneration out of the PAHO grant.

9. Finally, it appears clear that any attempt to assess the impact of research supported by the RGP from the standpoint of both use by PAHO and the degree of dissemination and use achieved by the research in scientific circles in the various fields of knowledge must necessarily take into account the contradictions found with regard to: a) PAHO-instigated projects (which had a greater impact on PAHO) and spontaneously submitted projects (which had a greater impact on specific areas of production of knowledge); b) whether the aim of the RGP should be to foster the production of knowledge or to develop national research capabilities (with emphasis on the most disadvantaged sectors); and c) whether the grants should be viewed as subsidies (which places the emphasis on financial cooperation), or as a comprehensive support for the production of knowledge (combined emphasis on technical and financial cooperation).

BACKGROUND


2. The Internal Advisory Committee on Research (IACR), established by the Director in 1984, devoted some of its meetings held during the first four months of 1988 to reviewing the Research Grants Program, based on the experience accumulated since February 1985. This review included conceptual and management aspects. In April 1988 the Committee prepared a report of its deliberations and recommendations, which was subsequently approved by the Director. Please refer to Document DRC/3679, which was distributed to the Technical Programs, Representative Offices, and specialized Centers in August 1988.

CONCEPTUAL ASPECTS

3. The conceptual aspects of the Program, which are detailed in Document PNSP/85-05, were considered pertinent, valid, and current. Among them it is noted that research is a fundamental component of technical cooperation that contributes to its reorientation and enhancement through the incorporation of new knowledge.

With regard to its objectives, the Grants Program should:

promote the organization and integration of knowledge in health and facilitate its inclusion in social practice;

provide a tool for the promotion of research that contributes to the solution of priority health problems in which the Organization concentrates its principal lines of action;

be a mechanism for coordination between Technical Programs and the various management levels of the Organization.
The priority thematic areas of the Grants Program and the respective responsible Technical Programs are:

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<tr>
<th>THEMATIC AREA</th>
<th>TECHNICAL PROGRAM</th>
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<td>Health Situation and Trend Assessment (HST)</td>
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<td>Process of technological development in health</td>
<td>Health Policies Development (HSP)</td>
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<td>Political process and health</td>
<td>Analysis and Strategic Planning Coordination (DAP)</td>
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<td>Process of growth, development, and human reproduction</td>
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<td>Priority technological development</td>
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<td>Socioeconomic development and health</td>
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<td>Scientific activity in health</td>
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</table>
5. A brief description of each of the thematic areas appears in document DRC/3679 distributed previously.

ASPECTS OF MANAGEMENT

6. With regard to management aspects, two work modalities were established. The first is applied to the first thirteen thematic areas, and the second to the last two.

Modality I

7. This work modality reinforces the principle of the incorporation of research as a regular cooperation activity of Technical Programs. It attempts to eliminate the ambiguity in the allocation of responsibilities of the original design of the Program and to facilitate the review and approval processes.

8. It is the responsibility of the Technical Program in charge of one or more thematic areas:

- to define the content and level of detail of the Development Plan of the thematic area;
- to decide on the desirability of convening an interprogrammatic group;
- to select research groups;
- to promote the Development Plan;
- to review projects (internally and/or by external reviewers);
- to review reports (partial and final) and provide summarized versions to DRC for subsequent dissemination;
- to maintain communication with PWRs and researchers (on reformulation of the project, adjustments, rejection, or approval, etc.);
- to provide technical support to projects that should be reformulated and submitted to new review by the IACR;
- to perform technical follow-up;
- to evaluate results and support their dissemination;
- provide information to DRC on activities carried out in the area of the Grants Program;
9. This first Modality permits the consideration of projects generated on the initiative of researchers in the Region if such projects conform to the description of the thematic areas and to the "General Conditions of the Program."

Modality II

10. This modality is applied to the two last thematic areas, which are of greater amplitude and complexity with regard to the need for participation on the part of the various Programs, professionals in various disciplines, and development of research at the level of various countries simultaneously and uniformly.

11. It is the responsibility of Research Coordination (DRC) to convene interprogrammatic groups in these thematic areas to:

- define the content and level of detail of the Development Plan of the thematic area;
- promote the Development Plan;
- select research groups;
- review projects (internally or by external reviewers);
- maintain communication with PWRs and researchers (on reformulation of the project, adjustments, rejection, or approval, etc.);
- review reports;
- perform technical follow-up on the projects;
- evaluate the results and support their dissemination;
- provide technical support to projects that require reformulation before being considered again by the IACR.

BOTH MODALITIES

Responsibilities of the IACR

12. The IACR will meet four times a year in the months of February, June, September, and November to:

- review the Development Plans of the thematic areas corresponding to Modality II;
judge and formulate recommendations on projects conforming to the "General Conditions of the Program" that have received favorable technical review by the Technical Program (Modality I) or by the interprogrammatic group (Modality II);

evaluate and formulate recommendations to the Director on the overall development of the Grants Program and its conduct;

formulate recommendations to the Director on institutional research policies and their implementation.

Responsibilities of DRC

13. The responsibilities of DRC with respect to the Grants Program are as follows:

- to promote and disseminate the Grants Program;

- to ensure initial registration of projects, their conformity to the provisions of the document "General Conditions of the Program", and subsequent administrative follow-up;

- to convene meetings of the IACR and to prepare the documentation required for their deliberations;

- to prepare a report of the deliberations of the IACR and submit it for consideration by the Director;

- to prepare and send to the Director for his signature Agreements of Technical Services corresponding to projects that have been approved and subsequently send them to the Representative Offices for processing with the pertinent national institutions;

- to furnish the Technical Programs with the report of the observations and recommendations of the IACR to the Director and his decision about the projects in the thematic area under its responsibility;

- to request ACC/GRT to authorize delivery of funds to the PWRs in accordance with the calendar for reports and disbursements for each project;

- to make purchase orders for equipment and materials for projects so requiring;

- to maintain an information system for the Program that fulfills the needs of the Director, the Advisory Committee on Health Research (ACHR), the IACR, the Technical Programs, and the PAHO/WHO Representative Offices in the countries;
to support selectively and jointly with the Technical Programs projects for which the IACR recommended reformulation and subsequent review.

- to support Technical Programs in the preparation of the Development Plans and/or multicenter research protocols.

**Responsibilities of the PAHO/WHO Representative Offices**

14. The responsibilities of the PAHO/WHO Representative Offices with respect to the Grants Program are:

- to promote the Grants Program in the scientific community and institutions of the country;

- to collaborate with Technical Programs in promoting the Development Plan, identifying and selecting research groups, and performing follow-up of projects related to the various thematic areas;

- to carry out initial review of projects (internally and/or by national reviewers);

- to carry out administrative procedures for the development of projects, such as processing of agreements at the country level, disbursement of resources in accordance with established financial standards, etc.
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2. It is reaffirmed that research is a fundamental component of PAHO's technical cooperation and contributes to its enhancement, reorientation, and adaptation by providing new knowledge.

3. The main objective of the Grants Program is to promote and encourage lines of research that will contribute to solving the health problems identified by the Organization. It is, therefore, one of PAHO's mechanisms for carrying out cooperative activities geared to the management of knowledge in the field of health.

4. The Grants Program will give preference to research that falls within the areas identified as being of a priority nature in the PAHO/WHO Strategic Orientations and Program Priorities, adopted by the Pan American Sanitary Conference for 1991-1994, and within the priority areas of the preliminary proposal of the Ninth General Plan of Work of WHO. Those areas are:

   - health and development
   - health promotion and protection
   - disease prevention and control
   - health systems and services
   - health and environment
   - biotechnology

5. The areas indicated will be promoted preferentially by the Organization. Investigators in the Region will be invited to submit proposals in those areas and will be provided with the terms of reference for that purpose. The terms of reference will include the priority subject areas, problems, and approaches. Consideration will also be given to proposals for research in public health submitted spontaneously by researchers who intend to study other subjects related to the priority areas.
6. Responsibilities of HDR:
   • to promote and publicize the Grants Program;
   • to serve as focal point for the solicitation of studies in the priority areas;
   • to handle administrative matters related to the receipt, review, and monitoring of projects;
   • to serve as secretariat of the IACR;
   • to maintain an information system for the Program that meets technical and administrative monitoring needs;
   • to selectively support the development and execution of projects in coordination with the technical units.

7. Responsibilities of the IACR:
   • to analyze the proposals submitted to the Program and make recommendations to the Director on their merits;
   • to review the solicitations of studies in the priority areas and make recommendations to the Director on their merits;
   • to evaluate the overall activity of the Grants Program and make recommendations to the Director on its operation.

8. Responsibilities of the Technical Units:
   • to promote proposals for research in their area of competency;
   • to prepare, jointly with HDR, solicitations of studies relating to their area of competency;
   • to support the development and execution of projects;
   • to collaborate in analyzing and reviewing projects and reports on those approved;
   • to evaluate the results and support their dissemination.
9. Responsibilities of the PAHO/WHO Representations:

- to promote the Program in the respective country;
- to collaborate in reviewing and monitoring projects;
- to carry out the administrative-financial procedures for the execution of projects.