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EVALUATION OF PAN AMERICAN CENTERS: LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT

This document describes the evaluation process of the Latin American Center for Perinatology and Human Development (CLAP), and contains a summary of the findings and recommendations of the Evaluation Team.

The Evaluation Team was composed of Dr. Roberto Jurado García, Director of the National Institute of Perinatology, Mexico, and Dr. Dalva Coutinho Sayeg, Director of the Institute of Child Welfare and Pediatrics of the Federal University of Rio de Janeiro, Brazil. Guidelines for the evaluation were prepared by the Regional Office. A self-audit was carried out by the staff of CLAP during the month of May. The Evaluation Team carried out its evaluation during May-June, and made one site visit to Uruguay. The Evaluation Team's complete report appears as Annex to this document, and contains a detailed analysis of the findings and recommendations for the future orientation of CLAP's activities.

Introduction

The Latin American Center for Perinatology and Human Development (CLAP) is located in Montevideo, Uruguay.

While its record, functions and prestige are well-known, the evaluation assesses in depth the extent to which it has accomplished the purposes stated in its Agreement and the responsiveness of its performance to the Organization's policies and strategies. From analysis of and reflection on these two parameters will emerge findings on which to decide the future role and direction of CLAP.

1. Terms of Reference

The questions and issues considered; in the evaluation were as follows: a) purposes; b) investigative functions; c) manpower development functions; d) functions in technical cooperation with the countries; and e) administration, including personnel, financing and budget, plant and equipment, coordination, and outlook.

The choice of members of the Evaluation Team was governed by the need to have:

i) A perinatologist of high standing and serving in a directorial capacity at a comparable establishment;

ii) A pediatrician trained in public health and with experience in health administration and in manpower training for maternal and child care.

In the light of these considerations, the Director of the Pan American Sanitary Bureau entrusted the evaluation to Dr. Roberto Jurado García, Director of the National Institute of Perinatology, Mexico, and Dr. Dalva Coutinho Sayeg, Director of the Institute of Child Welfare and Pediatrics of the Federal University of Rio de Janeiro, Brazil.

These two professionals met the proposed timetable, applied the evaluation guide, and wrote their report.

2. Timetable for the Work

The evaluation of CLAP was carried out in the following stages: a) internal compilation of the basic documentation and related materials; b) assembly of the Evaluation Team in Washington in mid-May 1981; c) review of the documentation and formulation of the terms of reference: Washington, first week of May 1981; d) visit to the Center in late May; e) writing of the first draft of the report in the fourth week of May; and f) analysis of commentaries and writing of the final report, around mid-June.

3. Summary of the Evaluation Report

The XX Pan American Sanitary Conference, in Resolution XXXI, requested the Director to commence the evaluation of each of the Pan American Centers.

Moreover, PAHO has formulated the Regional Strategies of health for all by the year 2000, and it has to be determined whether a contribution to attainment of the new goals may be expected from this Center.

Against this background, the Evaluation Team dealt with the following major points: a) evaluation of the current purposes; b) research functions; c) manpower development functions; d) functions in technical cooperation with the countries; e) administration; f) personnel; g) financing and budget; h) coordination; and i) outlook.

a) Evaluation of purposes: The Evaluation Team is of the view that the general purpose of providing "technical cooperation with the countries of the Region in improving the promotion, protection and recovery of perinatal, maternal and child and family health" is being accomplished, for CLAP has been providing invaluable support to the Governments and institutions in its specific area.

Notable among these specific purposes is that of contributing to the development of appropriate technologies in essential aspects of primary health care, such as:

- Normal delivery care
- Care of the normal and the pathological neonate
- Standardization of medical records
- Standardization of perinatal care in premature delivery

Another important area is that of projects and activities in which the participation of the community, properly informed on perinatal and pediatric care, is encouraged.

The Evaluation Team states that the current purposes should be maintained until the expiration of the present agreement in early 1982 and serve as a basis for the drafting of a new agreement, inasmuch as they coincide with the strategies for attaining health for all by the year 2000.

b) Research functions: After reviewing the many studies done and principal publications issued at CLAP, the Team notes that these activities are closely related to the current purposes, seem to be in accord with the Organization's own goals, and are useful and worth considering as an instrument for implementation of the Regional Plan of Action. The Team further emphasizes that research for the development of appropriate technologies has grown from 11.8 per cent under the first agreement to 52.7 per cent under the current one.

c) Manpower development functions: The report supplies detailed figures to document the volume of activities carried on. Suffice it to mention that in the last five years there have been 821 fellowship recipients from 18 Member Countries.

The Team feels that the potential of CLAP should be harnessed for meeting the demand that the goal of health for all by the year 2000 will generate. It suggests that a larger number of courses be organized in the countries and conducted by national instructors under the Center's guidance.

d) Technical cooperation with the countries: In figures, this cooperation is represented by 1,965 days of consultancy provided to 19 countries in the Region in the last five years. The leading recipients have been Argentina, Brazil, Uruguay and Venezuela.

The Team is of the view that this cooperation is accomplishing the purposes of the current agreement and the Organization itself. It also notes that the Center is heavily emphasizing perinatal care at the primary level.

e) Administration: The Team suggests that CLAP's owned technical staff clearly identify its functions, operations and actions and their relationship with its structure, and that it try to work out charts of organization and functions to give its staff and others a comprehensive view of CLAP and contribute to smoother teamwork.

f) It is noted that only four staff members are consultants from PAHO, while 51 are national consultants whose conditions of employment are irregular and unstable. It is reaffirmed that the operational personnel are dedicated and perform their tasks very efficiently with limited resources and under difficult working conditions. The Team suggests a reorientation of CLAP's operations to emphasize the development of appropriate technologies for perinatal care at the primary level and application of the risk approach in the care of the more vulnerable groups.

g) Financing and budget: The Team made a careful analysis of the budgets of CLAP since its inception and made the following observations: i) extrabudgetary funds are irregular, and hence unreliable; ii) expenses under individual items seem reasonably distributed in accordance with general administrative guidelines; and iii) analysis of the data points to an excellent correlation between expenditure and performance, and indicates that the ratio of cost to benefit favors the latter.

h) The Team observes that relations with the PAHO Field Office in Uruguay have been close and very good, likewise with the Office of the Area VI Representative. It notes that the Ministry of Public Health of Uruguay has given all possible support to CLAP's operations, particularly to projects within the country. The same may be said of the Clinical Hospital which, in addition to providing the premises, also pays part of the salaries and operating costs.

i) The Evaluation Team concludes that the area of activity of CLAP must be maintained and expanded by setting up around this Center a network of WHO Collaborating Centers in the perinatal area, inasmuch as the technical cooperation requirements of the countries will not only remain at their present level, but will actually increase.

In view of this, the Team suggests the following alternatives:

i) That PAHO endeavor to preserve CLAP as it is now, in view of its excellent performance and the great benefits it has made possible at low cost during its 11 years of existence;

ii) That it be gradually transformed into a national center consisting of the National Department of Perinatology and an international component (CLAP), which would support the national staff and work primarily on the conduct of regional projects, in which it would cooperate with the other Member Countries, and that consideration be given to the Organization's continuing its contributions of funds and international staff for specific programs of research, training and instruction at the regional level;

iii) That an effort be made to induce some Members Countries to develop their potential to set up national centers of their own, thereby developing a network of collaborating centers in the perinatal area; this network would be of undoubtable importance to the Organization's future plans.

4. Recommendations

The following recommendations emerge from the careful analysis made by the evaluators:

a) That PAHO's activities in perinatal health, and particularly in the development of appropriate technologies at the primary care level, be maintained and increased;

b) That CLAP be maintained as it is at present until the end of 1982;

c) That a new agreement be drafted under which, as from 1983, a composite agency is established consisting of the Perinatology Department of the Clinical Hospital and CLAP as an international component;

d) That encouragement be given to the designation of WHO Collaborating Centers in perinatal health in different countries of the Region with a view to setting up a network of national institutions in order to favor technical cooperation among countries for extending the coverage of perinatal care through the development of appropriate technologies.

Annex

EVALUATION OF THE LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT (CLAP)

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CONTENTS

		Page
PREFACE - EVOLUTION OF THE CONCEPT OF PERINATOLOGY		
1.	INTRODUCTION	1
2.	FRAME OF REFERENCE FOR THE EVALUATION	1
2.1	Evaluation of the Ten-Year Health Plan for the Americas	1
2.2	Strategies for Achieving Health for All by the Year 2000	2
2.3	Objectives of the Latin American Center for Perinatology and Human Development	4
3.	EVALUATION METHODOLOGY	8
4.	FINDINGS OF THE EVALUATION OF CLAP	8
4.1	Evaluation of Current Objectives	8
4.2	Research Functions	19
4.3	Development of Human Resources Functions	26
4.4	Functions of Technical Cooperation with the Countries	28
4.5	Administration	30
4.6	Personnel	31
4.7	Finance and Budget	35
4.8	Physical Facilities and Equipment	36
4.9	Coordination	37
4.10	Prospects	38
ANNEX I		
ANNEX II		
ANNEX III		

PREFACE

EVOLUTION OF THE CONCEPT OF PERINATOLOGY

To bring the evaluation of CLAP into better focus, the evolution of the concept of perinatology over time should be borne in mind. The term, which appeared in the 1940s, was coined by Dr. Clement Smith in his studies on neonatology and used by S. Peller in Austria to designate a specified period of human development between the second week of gestation and the first month of extra-uterine life. His purpose was to standardize criteria for evaluating fetal and neonatal mortality.

Subsequently, in the 1950's it began to be used to designate the approach used by obstetricians and pediatricians to gain a better understanding of their joint role in handling the problems of reproduction and of human growth and development. Thus, the former considered it a subspeciality of obstetrics, and the latter, a branch of pediatrics.

Nevertheless, the growing interest of both, which was clearly evidenced in the evolution of the objectives of CLAP in three agreements discussed below (which focused first on therapeutic processes, then diagnoses in pregnant women, the fetus and the newborn, and, finally, preventive and rehabilitation processes, especially at the primary level) has led Dr. Virginia Apgar and one of the evaluators--separately--to define perinatology as follows:

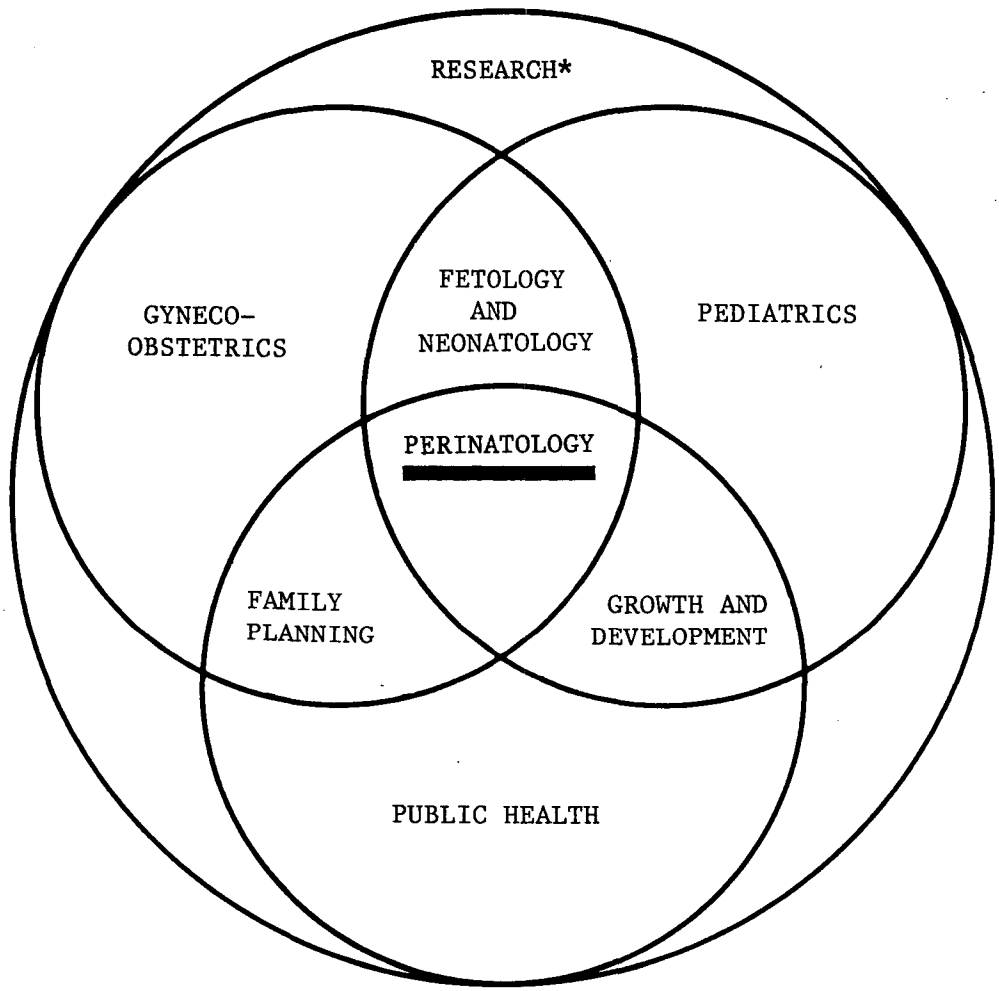
> "That branch of medicine which deals with the fundamental processes of reproduction and human growth and development, the gyneco-obstetrical, pediatric and public health aspects of which are indissolubly linked through the use of an approach based on the methodology of scientific research."

Perhaps the best way of understanding it is the following outline:

> As an integral part of perinatology the public health approach makes it possible to clearly understand the enormous importance of this branch of medicine in achieving the goal of health for all by the year 2000.

Figure 1

Perinatal care



* SCIENTIFIC, OPERATIONAL
AND ADMINISTRATIVE

SOURCE: Jurado García, E., La atención perinatal en México, Chapter 24 of the book "Clinical Perinatology," edited by S. Aladem, A. K. Brown, and C. Sureau, 1981

1. INTRODUCTION

1.1 In Resolution XXXI, which deals with the institutions known as Pan American Centers, the XX Pan American Sanitary Conference resolved in operative paragraph 6:

> "To request the Director to commence the regular evaluation process of each center called for in the report and to entrust the Executive Committee with design of appropriate evaluation methods and review of the evaluation reports."

In compliance with this resolution, the Directing Council of PAHO has ordered the successive evaluation of each of the seven regional centers.

1.2 Furthermore, PAHO is in the process of changing the action policy of its program "General Health Plan for the Americas," which was recently evaluated, to that of "Health for All by the Year 2000," pursuant to the mandate of the World Health Organization, and needs to know whether CLAP--in this particular case--can continue to be considered for the achievement of the new goals.

1.3 Finally, since the third agreement between PAHO and CLAP will end in December 1982, this evaluation is of use in considering the possible renewal of that agreement.

1.4 Incidentally, in September 1981 and in accordance with the rules of the Organization, the present Director of the Latin American Center for Perinatology and Human Development (CLAP) is to retire. This situation opens up the following alternatives: (a) transformation of CLAP into a national center; (b) its continuation as a Pan American Center; and (c) mixed possibilities.

2. FRAME OF REFERENCE FOR THE EVALUATION

2.1 Evaluation of the Ten-Year Health Plan for the Americas

The "general results" section of Document CD27/34.B of 13 August 1980, entitled "Evaluation of the Ten-Year Health Plan for the Americas," summarizes the progress achieved by the Region in attaining the goals established by the III Special Meeting of Ministers of Health held in Santiago, Chile, in October 1972. Those goals were incorporated into the policy of the Pan American Health Organization by Resolution XIII of the XXI Meeting of the Directing Council.

The progress made by the countries of the Region towards achieving those goals was generally less than expected, which may be explained in part by their different levels of socioeconomic development. It may also be inferred that:

(a) the structure of the national economies of some countries did not favor the achievement of the goals;

(b) the period set for their achievement was too short;

(c) the countries encountered problems in translating their objectives into goals for the production of the necessary resources; and

(d) the national decision to achieve the goals was not always sufficiently resolute and sustained.

The most important results were achieved by those countries that were able to reorganize their social and health sectors, establish intersectoral links, and obtain the necessary international cooperation for achieving the goal. Problems of economies of scale and the priority needs of other sectors of the economy hindered the task even more in the communities of the Caribbean islands and other small countries. While all the countries of the Region made some progress, the varying availability of real and financial resources, aggravated by cost escalation, widened the gap between the less developed and the more developed countries in the Region.

2.2 Strategies for Achieving Health for All by the Year 2000

2.2.1 In 1979 the World Health Assembly (Resolution WHA32.30) urged its Member States to define and implement strategies for attaining the goal of health for all by the year 2000.

To fulfill the commitment of the Governments of the Region of the Americas to implement the resolution of the World Health Assembly on the formulation of strategies, the Directing Council of PAHO adopted Resolution XXV in 1979, which approved a work plan consolidating in a single process the evaluation of the Ten-Year Health Plan for the Americas and the formulation of national and regional strategies for attaining the goal of health for all by the year 2000; the outcome was Official Document 173 of 1980 which, after being submitted to the XXVII Meeting of the Directing Council of PAHO for consideration, was approved by Resolution XX.

2.2.2 The above-mentioned document (Off. Doc. 173, 1980) sets forth and analyzes in detail the priority components of national strategies for primary care and their implications, which include:

(a) extension of the coverage of health services and environmental improvement;

(b) organization and participation of the community for its well-being;

(c) development of intersectoral linkages;

(d) conduct of research and development of appropriate technologies;

(e) supply and production of critical inputs and equipment;

(f) training and use of human resources;

(g) sectoral financing;

(h) international cooperation.

It should perhaps be emphasized that, with respect to the priority component (a), "extension of the coverage of health services and environmental improvement," the participating countries explicitly stated that:

2.2.3 With respect to maternal and child health, the Governments emphasize the problems stemming from inadequate environmental sanitation and malnutrition, those connected with the lack of comprehensive family care, and others arising from the social context. As a result, the strategies include the following: comprehensive approaches to the health care of mothers; fostering of the comprehensive development of children; consideration of social welfare factors and the basic needs of the family. Surprisingly enough, only a few countries include dental health and family planning.

It is further stated that activities are aimed at improving maternal and child nutrition, health education, and the promotion of breast-feeding.

2.2.4 In another part of that section the document states that the processes of planning, programming and evaluation include a redefinition of the type of service production units, of the equipment for them and of their functions; of the number and type of personnel; and of their population coverage, of their organization by level of complexity and the institution of referral mechanisms between units in the context of functional regionalization.

2.2.5 The countries emphasize that the Ministers of Health need (we emphasize the obligation) to establish health systems based on a clear definition of responsibility for population groups, functions, coordination of work and activities.

2.2.6 The countries recognize that the development of appropriate technologies tailored to the characteristics of each national system is one of the pillars that will make its possible to attain the goal of health for all by the year 2000.

With respect to priority component (d), "conduct of research and development of appropriate technologies," the countries have emphasized in their strategies the need to set priorities for reviewing the approaches and procedures that constitute the conceptual and methodological armamentarium of research, both scientific and applied or operational, which is being conducted and used in the health sector as an essential measure for identifying the most significant problems and alternative solutions to them that can be used in each country for the purpose of attaining the proposed goal.

Finally, it must be recognized that the countries were realistic when, in analyzing the strategies and their possible implications, they pointed out that the experience gained in the past decade shows that at least in the early stages of the development of a coverage extension process conflicts appear that must be identified in order to lessen their contradictions (and adverse influences), and they should be put into proper perspective.

2.3 Objectives of the Latin American Center for Perinatology and Human Development

2.3.1 Document EV-AGR, Uruguay 4102, of 2 February 1970, "Agreement for the establishment of a Latin American Center for Perinatology and Human Development in the Republic of Uruguay," stipulates in Part II: Objectives, that:

> "The purpose of the establishment of the Center is to contribute to a reduction in maternal and fetal morbidity and mortality rates and subsequently to obtain appropriate health conditions for children by promoting research and training in the field of reproduction and human development."

For the purpose of achieving this goal, three objectives are specified, namely:

> "Objective 1 - Research
>
> Conduct of programs of scientific research on the factors that may be involved in fetal and child development, including genetic and biological, psychic and social factors that operate during pregnancy, delivery, and the neo- and postnatal periods.
>
> Objective 2 - Training
>
> Conduct of training programs preferably linked to research and teaching in the field of maternal and child health, including such aspects as: fertilization, nidation, development of the embryo and

of the fetus, physiology of the placenta, delivery and the neonatal period, feeding, and child development. In addition, the medical and biological aspects of the regulation of fertility will be included.

Objective 3 - Advisory Services and Dissemination

Advisory services to interested Governments, requested through the Organization; and distribution of pertinent information connected with the research and the work of the Center in general."

The original agreement ended in December 1974. During that period the Director of CLAP submitted an annual report on the work of the Center, which led to the renewal of the agreement for the period 1975-1978; it may thus be inferred that the Center fulfilled its task to the satisfaction of the Organization.

Furthermore, in June 1976, the Executive Committee of the Organization, having considered the report on the work of CLAP in the period 1970-1975, adopted Resolution CE76.R25, in which it commended the Center on its work, expressed its support for future activities, and recommended to the Governments that they use the services of CLAP.

2.3.2 In document ST-AGR, AMRO-4920 (Uruguay) of 29 August 1974, CLAP announced the following objectives for the period 1975-1978:

"(a) Long-term Objectives

a.1 Contribute to a reduction in maternal and perinatal morbidity and mortality rates, the prevention of the birth of low-weight, asphyxiated or pharmacologically depressed children with traumatic birth lesions or with infections acquired during pregnancy or birth.

(b) Short-term Objectives

Prevention at the three care levels.

b.1 Improve methods of primary prevention in maternal-fetal-neonatal health, through:

b.1.1 Improving methods of promoting maternal-fetal-neonatal health.

b.1.2 Improving methods of promoting fetal-neonatal development.

b.1.3 Increasing the efficiency of methods of specific protection applicable to the preceding points.

b.1.4 Ensure that each pregnancy is begun at the proper time, according to the age, nutritional status, inter-pregnancy interval, health, foreseeable physical tasks in the period of gestation, etc. of the mother and, in addition, when it is desired by the couple.

b.1.5 Ensure the normal intrauterine development, growth, and maturation of the fetus until the end of the pregnancy.

b.1.6 Ensure that delivery begins, proceeds and ends spontaneously, with the mother in the proper position (seated or moving and avoiding dorsal decubitus for prolonged periods). The expulsion will take place in a position similar to the squatting position, which allows proper control by the obstetrician. Avoid oxytoxic, analgesic, anesthetic and other drugs except when they are strictly indicated and absolutely necessary.

b.1.7 Obtain the birth of children of normal weight, with good vitality, without traumatic lesions or infections, that are not asphyxiated or depressed by analgesic drugs, and whose extrauterine development and growth potential is kept intact.

b.1.8 Promote the immediate establishment of close and continuing psychosomatic and nutritional relationships between the mother and the child.

b.1.9 Foster the active, conscious, and informed participation of the mother and the father in all the above-mentioned processes.

b.2 Devise new methods for the early diagnosis and prompt treatment of maternal and fetal-neonatal disorders designed to limit the resultant damage, which may be extremely important in the child since major neuro-psychological sequelae are easily produced and entail serious functional deficiencies that persist throughout the life of the new being.

b.3 Increase the maternal and feto-neonatal rehabilitation activities that can be begun during pregnancy, delivery, or the neonatal-puerperal periods. The early initiation of neonatal rehabilitation improves the results obtained."

The second agreement between the Pan American Health Organization (PAHO), the Government of Uruguay, the University of Uruguay and CLAP ended in December 1978. A review of its work led to the signature of a third agreement, which is at present in force and, as already indicated, will end in December 1982.

2.3.3 In Document SSA/AMRO-1370 (Uruguay) of 18 December 1978, CLAP set out its objectives for the new period; these were revised in the agreement signed in 1979 (see Document CD27/23, ADD. IV of 25 August 1980).

2.3.3.1 General Objective

Provide the developing countries in the Region of the Americas with technical cooperation for improving the promotion, protection and restoration of perinatal, maternal and child, and family health. The expected result is a reduction in the rates of maternal, perinatal and infant morbidity and mortality as well as in the disabling sequelae produced by perinatal diseases in mothers and children.

2.3.3.2 Specific Objectives

1. Develop, use and evaluate appropriate technology for perinatal and pediatric care in Latin America, giving highest priority to technology applicable to the primary level, especially in rural and peri-urban regions;

2. Develop regionalized models of perinatal and pediatric care, combining primary, secondary and tertiary levels in a progression of increasing complexity in personnel and technology, as needed;

3. Establish criteria for the referral of patients at each level of care, utilizing the strategy of adjusting the level of care to the degree of risk to health;

4. Promote rational use of existing resources;

5. Promote full community participation by keeping it properly informed about perinatal and pediatric care. Give high priority to education of mother and family about maternity and paternity, including the care of children from birth to adolescence;

6. Promote extended coverage with perinatal and pediatric services, especially at the primary care level and in rural and peri-urban regions.

We believe that the evaluation should focus on the extent to which the objectives set forth have been achieved as well as on their impact on the Member Countries, with a view to their inclusion in the program of strategies for health for all by the year 2000.

3. EVALUATION METHODOLOGY

In accordance with Document CE86/25 of 5 May 1981 on item 12(b) of the Provisional Agenda of the 86th Meeting of the Executive Committee of the Directing Council of the Pan American Health Organization, which describes the action plan and the sequence of activities established for evaluating the Latin American Center for Perinatology and Human Development (CLAP), situated in Montevideo, Uruguay, the Evaluation Team, composed of Dr. Eduardo Jurado García, Director of the National Institute of Perinatology (INPER-DIF) of Mexico, and Dr. Dalva Coutinho Sayeg, Director of the Institute of Child Welfare and Pediatrics (IPPMG), of the Federal University of Rio de Janeiro, Brazil, declare:

That they complied with the work schedule as follows:

- compilation of basic documentation and pertinent material;
- interviews with PAHO authorities;
- visit to CLAP and its service areas;
- interviews with staff members of CLAP and Uruguayan authorities; and
- drafting of the final report.

4. FINDINGS OF THE EVALUATION OF CLAP

4.1 Evaluation of Current Objectives

4.1.1 Achievements

4.1.1.1 With respect to the General Objective (see paragraph 2.3.3.1) the Evaluation Team is of the opinion that it is beginning to be achieved insofar as, since its establishment, CLAP has been giving extremely valuable technical cooperation to the developing countries of the Region of the Americas (further details are given below), although the expected result, namely a reduction in the corresponding rates of perinatal morbidity and mortality, both maternal and infant, is at present very difficult to quantify within the ambit of this evaluation.

4.1.1.2 With respect to the Specific Objectives, this aspect was developed jointly with CLAP's working group (Drs. Roberto Caldeyro-Barcia, Ricardo Schwarz, Rubén Belitsky and Angel Gonzalo Díaz) when CLAP conducted its self-evaluation.

Objective 1: "Develop, adapt, implement and evaluate appropriate technologies for perinatal and pediatric care in Latin America, assigning high priority to technology applicable at the primary level, especially in rural and marginal urban areas."

Since 1974, one of CLAP's main concerns has been the development, adaptation and application at various levels, both in Uruguay and in the Member Countries, of a number of appropriate technologies, among which the following warrant mention:

A) Normal Delivery Care: (Described in detail in CLAP publications 858 and 863. A presentation on it was also made at the Workshop on Appropriate Technology held in Washington in October 1980.)

- Educate the couple, father and mother, during pregnancy about delivery and care of the newborn. Motivate both to actively participate in the delivery so that they consider it a gratifying experience and in order, immediately after birth, to initiate the interaction between mother and child (sensorial, motor, affective) that includes sucking the maternal breast in the first 15 minutes of life.

- Ensure that throughout delivery the mother receives the emotional support of the father and of other family members she selects. These persons must be educated and motivated together with the mother.

- Allow the mother to choose the most comfortable position during labor and the expulsive period and to change it as she wishes. The common feature of the position selected was that the trunk of the mother is more vertical than horizontal. During the period of cervical dilation (active phase of dilation or labor) these positions were: seated, standing or walking about. In CLAP it has been demonstrated that these positions shorten this period of the delivery (CLAP publication 728). During the expulsive period (following complete dilation and up to birth) the positions selected were: seated in an obstetrical chair designed by CLAP (see Figure 2 in Annex I) or adopting a squatting position.

- Encourage the mother to make spontaneous straining efforts (average duration 5 seconds) and avoid the straining efforts ordered by the obstetrician that last for 20-30 seconds with

the glottis closed, during which the mother does not breathe. These lengthy apneas cause hypoxemia and hypercapnia in the mother and in the fetus, which do not occur when the mother spontaneously strains and the maternal apneas are of short duration.

° Avoid routine acts that interfere with the natural physiology of delivery or that are inappropriate or unnecessary. They should only be undertaken when they are specifically indicated for the purpose of correcting or preventing a complication, for example (a) artificial rupture of membranes at the beginning of delivery; (b) administration of oxytoxic, analgesic, aniolitic and anesthetic drugs, the use of which is widespread in the countries of the Region and have undesirable effects on the fetus.

° All the parents spontaneously expressed their satisfaction with their joint and active participation during delivery and for having initiated the interaction with the child immediately after birth. This led them to establish "Parents Clubs" for the purpose of disseminating their gratifying experience, for example the Parents Club of the city of Melo, Department of Cerro Largo, Uruguay.

° This appropriate technology for delivery care is being used in 90 per cent of deliveries that take place in the Melo hospital and in 100 per cent of the low-risk deliveries that take place in CLAP and, in addition, is being used in Mexico (National Institute of Perinatology--DIF); Brazil (Porto Alegre, Maternidade Mario Totta, Curitiba, Fortaleza, Maternidade Escola Assis de Chateaubriand); Argentina (Buenos Aires, Chaco and other areas); Spain (Madrid, Barcelona), etc.

B) Care of the Normal Newborn

° It was demonstrated that, in vigorous newborn babies delivered through the vagina, the traditional aspiration of the oto-naso-pharynge secretion is unnecessary. The group in which this aspiration was made had more buco-pharynge bacterial contamination and erosions in the mucosa. Aspiration is indicated when there is meconium in the amniotic fluid (to prevent its aspiration) in the newborn by Cesarean operation (in which the fetal thoracic compression exercised by the birth canal is missing) and, of course, in the depressed newborn who requires artificial ventilation of the lungs (see CLAP publication 884-1).

° In deliveries in which the appropriate technologies mentioned in (A) were used, the newborn had higher pO_2 and pH (and lower pCO_2) values than those considered "normal" in deliveries in which the prevailing conventional technology was used. This fact, coupled with the absence of the administration of analgesic drugs (which depress the maternal and fetal nervous system), explains why the newborn were more alert and, when handed over to their mother, a very early (sensorial, motor and affective) interaction began between them, including the beginning of the suction of the maternal breast within 5 to 15 minutes following birth.

° All these factors may have contributed (together with education and motivation of parents) to the higher rate (100 per cent) of breast-feeding in the series studied, which has been replicated in the Cerro Largo field study in a much larger series (already exceeding the 250 deliveries analyzed).

The Evaluation Team wishes to point out that this kind of breast-feeding has beneficial effects for the newborn such as a better increase in weight and a clear reduction in pathology, at least during the neonatal period. This is shown by the graphs in Figure 3 in Annex I.

° Simplification of the technology for estimating the gestational age of the newborn by physical examination (Capurro method, CLAP publication 732), which includes only eight variables and has proved to have the same reliability error as the Dubowitz method, which is much more complicated. The Capurro method has been applied in Mexico with excellent results in more than 4,000 observations.

This simplified method was used with the same error rate by primary health care workers, by nurses, and by mothers (see CLAP publication 884-3).

C) Care of Birth Problems

° When there is a risk of pre-term delivery and measures for preventing it have been exhausted, it is essential to ascertain the state of maturation of the fetal lungs. Gluck, in California, designed a sophisticated technology for that purpose (detection of the lecitin/sphingomyelin index in the liquid obtained by amniocentesis). A CLAP staff member developed a simplified method that is both easy to use and inexpensive.

D) Standardization of Medical Records

CLAP fosters the dissemination of a perinatal clinical history, the objectives of which are as follows:

- The purpose of this perinatal clinical history is to standardize the contents of the documentation corresponding to an event (pregnancy, delivery or puerperium) and the newborn in the immediate neonatal period.

- The forms contain a list of questions, to the most of which closed-ended answers can be given. In all cases, blank spaces are provided for any comments deemed necessary. The accompanying instructions facilitate and standardize the completion of the forms and make it possible to comply with the care standards.

- The perinatal clinical history consists of four integrated modules corresponding to different stages of the care process. They are developed in different periods and places and may be the responsibility of different members of the health team.

- In addition, together with the history there is a perinatal booklet and a coded perinatal statistical summary.

- The perinatal booklet is an instrument that constitutes a link between the different periods of care. The perinatal statistical summary is a coded form that makes it possible to analyze
the data obtained, either mechanically or on a computer.

- The perinatal clinical history has been used in 11 countries in the Region (Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Honduras, Mexico, Panama, Uruguay and Venezuela) (Ref: pp. 93-98 of CLAP report 881).

E) Standardization of Perinatal Management of Prematurity

It is a collaborative program between institutions in the countries of the Region of the Americas whose purpose is to disseminate knowledge and standardized obstetrical and neonatal procedures. It is designed to reduce neonatal morbidity and mortality due to the high incidence of preterm births and low birth weight. These factors are associated with 75 per cent of all neonatal deaths and with most of the morbidity.

- The operating costs of this program are low because it uses the resources of the health centers themselves. It has an action plan that is duly explained and appropriate support material for evaluating the specific objectives.

° CLAP supervises and coordinates the activities and processes the information obtained. Once the information has been processed, it is regularly returned to the participating centers through the Governments. The final results of each stage are discussed with the local groups and distributed so that the new knowledge generated may be used extensively.

° Through a series of specific activities, the program is endeavoring to achieve its final objective (see Figure 4 in Annex I).

° This program has been widely accepted in the countries of the Region and at present 52 maternity hospitals in 12 countries in the Region of the Americas are participating in it. Countries such as Argentina, Bolivia, México, Panamá, Uruguay and Venezuela have already incorporated the preventive, early diagnosis, and treatment aspects of this program into their national maternal and child health regulations.

° Through the system of recording perinatal data, which are collected prospectively and without underregistration, more than 300,000 consecutive births have so far been covered. This information is at present being processed. It will form the basis of an epidemiological study of low birth weight in the Region so that, once the circumstances and special features are known, the problem can be reduced and even prevented.

° Antenatal intervention, including new activities designed to prevent the birth of pre-term children in pregnancies in which there is an eminent risk of premature delivery, was evaluated in a program area (Paysandú, Uruguay). It was found that more than 50 per cent of the premature deliveries could be given standardized antenatal treatment during the first year of intervention. In these cases it was found that:

1) The birth weight was significantly higher in the intervention period than that recorded in the diagnostic stage;

2) The incidence of neonatal depression was significantly reduced when the intervention stage was compared with the prior diagnostic stage;

3) The incidence of symptoms of respiratory difficulty of the premature newborn significantly declined during the intervention stage;

4) Early neonatal mortality (during the first seven days of life) was significantly reduced.

- An analysis of the annual statistics of three centers--Paysandú (Uruguay), La Paz (Bolivia), and Las Higueras (Chile)--showed that, concurrently with the application of the intervention program, the incidence of low birth weight (2,500 g) and the rate of early neonatal mortality in this group declined.

- The beneficial results achieved with this program have opened up the possibility of a solution of a large part of the problem of neonatal morbidity and mortality associated with premature birth.

Objective 2: "Develop regionalized models of perinatal and pediatric care that have primary, secondary and tertiary levels of increasing complexity in human resources and equipment."

Objective 3: "Establish criteria for the referral of patients from each level of care, using the strategy of perinatal and pediatric risk for that purpose."

Specific objectives 2 and 3 are discussed together because they are closely related. CLAP publication 796, entitled "Regionalized Progressive Perinatal Care with Care Levels According to Perinatal Risk," was prepared at the request of the Ministry of Public Health of Chile and discussed at a seminar attended by representatives of all the health areas of the country. It forms the basis of the perinatal care system at present being used in Chile. What has been done in connection with Objective 2 is dealt with throughout most of the text, and Objective 3, in Tables 1, 2, 3, 4 and 5 of that publication.

CLAP document 791, entitled "Appropriate Technologies for Perinatal Care with Emphasis on the Primary Level," describes the achievements of Objective 2 on pages 104-124.

CLAP publication 819 describes the work being done on the objectives adapted to the departments of Cerro Largo and Treinta y Tres in Uruguay. Objective 2 is presented in chapter 7 (pp. 65-70). It shows where primary level care will be provided (for example, the Urban Health Center of Melo and the Auxiliary Centers of Rio Branco and Fraile Muerto). The secondary level will be provided in the Melo City Hospital. Tertiary level care will be provided at the headquarters of CLAP on the 16th floor of the Clinical Hospital (Montevideo). It indicates the functions and responsibilities of each level and, in the opinion of the evaluators, is a model that can be adapted to the needs of other countries in the Region that have similar problems. The successes achieved with Objective 3 are described in chapter 6 (pp. 39-62), which sets forth the risk criteria recommended for Cerro Largo for referring pregnant women, parturients, newborn infants and children to the appropriate level.

The report on the Cerro Largo program (1980) describes what has been done in achieving the specific objectives 1, 2 and 3 during the first year of the implementation of the program (1980).

Appropriate technologies for perinatal and pediatric care (chapter 3) were successfully implemented.

Care levels (Objective 2) were established at the same time as the Perinatal and Pediatric Health Registry (chapter 2), which contains referral criteria (Objective 3) and supplies data for the Perinatal Health and Pediatrics Information System.

Cooperation was given in regionalization models in Neuquén (Argentina) and Panama. Through the incorporation of the perinatal booklet a link was established between the different periods of perinatal care and, as a result, information resulting from the care of those periods in different places was not lost.

At present CLAP is conducting a study whose objective is to develop guidelines that will make it possible in the first prenatal consultation to identify high-risk pregnancies, that is to say, it involves the detection of risk indicators.

The material used in this investigation represents 25,000 consecutive deliveries from the present data bank obtained with the Perinatal Clinical History in the Ramón Sardá Maternal and Child Hospital in Buenos Aires and in the province of Neuquén, Argentina.

The rationale of this study is as follows:

1) Around 10 per cent of pregnancies are responsible for most of the perinatal morbidity and mortality.

2) Most of these pregnancies, which are accordingly known as "high-risk pregnancies," are associated with preconceptional factors. These are therefore already present at the first prenatal consultation, and it is thus possible to detect them at an early date and to apply corrective or at least palliative measures.

3) If it is possible to identify, order, and measure the degree of potentiation of these factors, it will be possible to devise a system of scoring that the health team can use in determining the risk of each pregnancy at an early date.

4) If, on the basis of results of this investigation, it is found possible to define simple and flexible guidelines, they will be used by the personnel of the levels of low complexity for defining referral criteria.

5) The results obtained will be fundamentally valid for the population studied (Ramón Sardá Maternal and Child Health Hospital in Buenos Aires and Neuquén); the guidelines could be tested in other places and adapted to local conditions. A first step is to analyze the operation of the scoring system in all the other centers in which the Perinatal Clinical History has been introduced.

Objective 4: "Promote the rational use of existing resources."

This objective is being achieved in part through the application of the three preceding objectives and, in addition, through the redistribution of functions and responsibilities of health personnel and their continuing training, which are described in paragraph 7.2 and 7.3 of CLAP publication 819. This activity was successfully undertaken in Cerro Largo, as described in chapter 4.a of the Cerro Largo Report (1980).

As a spin-off, the Evaluation Team, in analyzing the data obtained so far in the Cerro Largo and Treinta y Tres program, found that it was possible to quantify the levels of complexity in the provision of health services for that community.

If the results are replicable, this provides an excellent indicator for rationally using the resources available in each country.

Objective 5: "Promote the participation of the duly informed community in perinatal care and pediatrics. Assign high priority to the education of mothers and families concerning maternity and paternity, including the care of children from birth to adolescence."

The strategies for achieving Objective 5 in Cerro Largo are described in chapter 8 (pp. 79-82) of CLAP publication 819. Very favorable results were obtained in 1980. The education of mothers and fathers was carried out basically through midwives and nurses supervised by physicians, in accordance with the guidelines of CLAP. At present, Parents Clubs are being formed in Melo and in Rio Branco to teach future fathers and mothers as well as the community. These clubs are well designed and the Evaluation Team considers them to be an excellent example of promotion of the community for participating in the search for better health for all, especially since the Parents Clubs also plan to cooperate with the Health Centers and the Hospital, and thus to help the single and abandoned mothers that account for 14 per cent of the deliveries attended by the Ministry of Health in Cerro Largo.

Health and medical education of the community in general (see the Cerro Largo Report 1980, chapter 4.b was fundamentally the responsibility of local physicians. They used the Melo and Rio Branco radio stations

and the Melo television station (weekly program during the daytime at a set hour). The Neighbors' Board organizes meetings that are attended by many well motivated people who put questions to the panel, composed of the local physicians and CLAP personnel. These programs were tested and had to be transmitted as many as six times at the request of the community. The Evaluation Team had an opportunity to listen to some recordings and found them to contain a good message, albeit still in technical language.

Objective 6: "Promote the extension of perinatal and pediatric coverage, especially at the level of primary care and in rural and urban areas."

The extension of coverage was promoted through the use of the same methods as described for community education and the continuing education of health personnel.

The numerical data provided by the Health Information System are still insufficent to quantify the coverage.

The number of prenatal check-ups and the follow-up of newborn infants and of children increased significantly in the Rio Branco Auxiliary Center. The larger demand in rural areas led the Ministry of Public Health to expand and improve the physical facilities and to renew the equipment of the rural centers of Fraile Muerto and Plácido Rosas. At present, similar actions are being undertaken in the Rural Centers of Aceguá and Noblía. The last mentioned center will be the residence of a physician who has completed the postgraduate course in rural medicine of the Faculty of Medicine.

The implementation of this program of perinatal and maternal and child care into the Department of Treinta y Tres will begin in July 1981, when Dr. Ducan Balbis takes up his post as Departmental Director of Healthof the Department of Treinta y Tres. Dr. Ducan Balbis has shown great interest in this program and is in contact with CLAP in order to become familiar with its characteristics.

Suggest Other Objectives that Should be Included

To cooperate with PAHO and especially with the Division of Comprehensive Health Services (and with the countries of the Region) in its task of preparing and implementing strategies for attaining the objective of health for all by the year 2000.

4.1.2 Indicate Whether the Objectives Should be Continued in the Future

After studying the objectives that have served as a basis for the activity of CLAP through the three agreements concluded with PAHO (EV-AGR, Uruguay--4102 of January/February 1970; ST/AGR, AMRO-4920 (Uruguay) of August 1974, and SSA/AMRO-1370 (Uruguay) of December 1978), the Evaluation Team is of the opinion that the objectives appear to somewhat anticipate the needs of the normal programs of the Organization in their search for health for the population of the Member Countries, especially with respect to the current objectives, since, as may be seen, they fit in perfectly with the strategies for attaining health for all by the year 2000 (see Official Document 173, Chapter 7, paragraphs 3; 4.1.1; 4.1.3; 4.1.15, especially its third paragraph; 4.5; 4.6; 4.7; 5.1; 5.2; 5.4; and 5.5.

Accordingly, the Evaluation Team wishes to state that it is convinced that these current objectives of CLAP should be definitely continued until the end of the present agreement and, given the results obtained so far and the information being collected, should serve as the basis for preparing a new agreement that will continue the obvious usefulness of CLAP to the purposes of the Organization.

4.1.3 Suggest Objectives that Should be Included

As already pointed out, CLAP is an important mechanism for testing and validating the strategies of PAHO/WHO for attaining health for all by the year 2000.

By increasing the number of fellows--naturally, in accordance with its capacity--and by shortening the program of training human resources for other countries to 12 months and through its operational research and research on simplified technologies it can help establish "operational models of primary care" that can be adapted to various conditions.

Increase the use of the technical cooperation provided by the Center through:

1) Seminars and workshops in interested countries.

2) Perinatalogical training of instructors in the Member Countries so as to decentralize the courses and hold them in various countries while taking local conditions into account.

Improve the quality of the perinatal care of mothers and children.

Undertake health service research, including aspects of health administration, such as coverage, sectoralization, classification by risk indicators, efficient use of available resources, etc.

4.2 Research Functions

4.2.1 Describe the Principal Investigations Carried out in the Past Five Years

The principal investigations carried out by CLAP have been summarized in two publications. The first, CLAP document 677, describes what was done in the period 1970-1975, and the other, CLAP 881, what was done in the period 1975-1980.

In accordance with these instructions, the Evaluation Team wishes briefly to describe below the investigations it considers the most important.

4.2.1.1 Appropriate technology for the care of the first period of delivery and for the care of the expulsive period.

- An operational research project was carried out in 11 centers in 7 countries (Argentina, Brazil, Costa Rica, Chile, El Salvador, Venezuela and Uruguay), the purpose of which was to ascertain the most appropriate position chosen by women during the dilation period, to the best advantage of fetal conditions and consequently of the newborn.

  The results obtained showed:

  a) Reduction of the duration of labor by 25 per cent;

  b) Less use of forceps;

  c) The proportion of spontaneous rupture of the ovular membranes or of the cephalic shape of the newborn did not increase;

  d) Neither the Apgar score nor neonatal morbidity and mortality was increased;

  Everything pointed to the advisability of ambulatory labor.

  The participating countries incorporated this technology and have become agents of its dissemination.

The data analyzed were published in:

- Díaz, A. G., et al, Rev. Soc. Obstet. Ginecol. (Bs. As.) 759:267, 1976.
- Ibid, Clinical Invest. Ginec. Obstet. (Spain) 5:101, 1978.
- Ibid, Europ. J. Obstet. Gynec. Reprod. Biol. 11:1, 1980.

- With respect to the second aspect, the research was carried out on 60 women and showed that the natural position for the expulsive period of delivery is sitting or squatting, that the thrusting of the women must be spontaneous and never directed by the person attending the delivery, and that the presence of the father is highly advisable. All this is to benefit the conditions of the newborn.

This work was published in:

- Caldeyro-Barcia, R., et al, "Recent Progress in Perinatal Medicine and Prevention of Congenital Anomaly." Medical Information Service Inc., Tokyo, Japan, 1980.
- Caldeyro-Barcia, R., et al, "1st Internat. Berlin Meeting of Perinatal Medicine" as edited by E. Saling and J. Dudenhaussen, June 1979.
- Poseiro, J. J., et al, La Farmacia (Uruguay) 1:4, 1979.
- Caldeyro-Barcia, R., et al, Boletín de la Oficina Sanitaria Panamericana. 90:6, 9, 1981.

4.2.1.2 Investigations designed to improve the methods of promoting fetal-neonatal development.

- Biochemical and endocrine evaluation of the growth and vitality of the human fetus.

  Fifty-six pregnant women classified as high risk were studied, including 18 diabetics: the levels of estriol, hydroxicorticosteroids and oxytocinase were measured in plasma specimens by the radioimmune assay technique; the levels were correlated with the presence or absence of edema of the choreal velocities, the Apgar score, and the body weight of the newborn. It was found that the last-mentioned perimeters (Apgar and body weight) were directly correlated with the levels of estriol and hydroxicorticosteroids in the maternal plasma, which showed very low levels when the newborn is hypotropic (malnourished at birth). This is a useful test that can be used in the third-level perinatalogical centers or maternity hospitals.

- Research on fetal pulmonary maturation.

  The Clements' test (simplifed technology) is useful in diagnosing the maturity of the fetal lungs. This was commented on more fully earlier.

The article has been sent and accepted for publication in J. Perinatal Med.

- Routine maneuvers for the aspiration of bucco-pharyngeal secretions.

  The study shows that in the normal newborn resulting from natural delivery aspiration maneuvers are not to be recommended because (i) they are unnecessary; (ii) they are a possible source of bacterial contamination; (iii) they are generally traumatic for the mucosa of the newborn; and (iv) they tend to cause bradycardia.

  Indeed, in a study of 241 cases divided into two groups, a control group and an experimental group, 15 per cent contamination and 2.4 per cent erosion was found in aspirated infants, as opposed to 2.5 per cent in the non-aspirated.

  An article, signed by Dr. Raul Bustos et al, was sent to the Boletín of the Pan American Sanitary Bureau for publication. It is obviously useful, since it points to the irrelevant and little studied nature of some of the maneuvers used in the management of the newborn, which on occasion can lead to major damage.

4.2.1.3 Appropriate technology for determining the gestational age of the newborn.

- The study was caried out with 115 neonates of mothers who were certain of the date of their last menstruation. An effort was made to simplify the Dobowitz method, which incorporates 21 variables and gives a coefficient of correlation of r = 0.91 and an appraisal error of +- 8 days. The Capurro method, which reduces the number of variables to only 6 (4 somatic and 2 neurological variables) is very advantageous, since its r = 0.90 and the appraisal error is +- 8.4 days.

  This is a good example of the simplification of a technology without impairing its accuracy.

The article was published: Capurro, H., et al, Pediatrics 93:120, 1978, and the method has been disseminated in the countries of the Region. Mexico has analyzed more than 4,000 newborn.

- In an expanded study, the use of the Capurro method in 1,206 newborn was compared by four types of users:

  i) pediatricians;
  ii) university trained nurses;
  iii) nursing auxiliaries;
  iv) traditional birth attendants.

It was found that there were no significant differences among the first three groups of users, only with the traditional birth attendants.

The article, which was signed by Dr. Haroldo Capurro, was sent for publication in the Boletín of the Pan American Sanitary Bureau, 1980. Thus, the method is very easy to use and has a wide coverage.

4.2.1.4 Patterns of intrauterine growth

- The investigation includes four somatic studies--in Uruguay and one in Argentina--as well as a study with ultrasound. Items aimed at establishing patterns of intrauterine growth to be used for early detection of growth deviations and for taking valid decisions for correcting the problem.

  In addition, ecography was compared with the simplified technique of measuring the height of the uterus in a longitudinal study of 30 pregnant women that came for consultations at an early stage.

  The conclusion reached was that the method of measuring the height of the uterus is a good discriminator, and that, if the growth falls below the 10 percentile of the height of the uterine fundus graph, the case should be confirmed by ecography if the resource is available.

The publications are:

- Guayasamín, O., et al, Boletín de la Oficina Sanitaria Panamericana, 8:481, 1976.
- Benedetti, W. L., et al, Obst. Ginec, Latinoamericana, 33:251, 1975.
- Curbelo, V., Graduate thesis in pediatrics, Graduate School of the University of the Republic of Uruguay, September 1975.
- Diaz, A. G., et al, CLAP Scientific Publication 846, 1979.

4.2.1.5 Postnatal growth and development

- The neonatalogists of CLAP have been following a research line aimed at simplifying the evaluation of postnatal growth.

  Initially, the percentile growth curves were established on the basis of body weight, height, perimeters, etc.

- Next, indicators of weight increase in fixed periods were developed so that the resulting graphs (simplified work instrument) can be used even by primary health care workers and without a knowledge of the birth weight and gestational age.

  The indices found are the expected weight gain in periods of 30, 45 and 60 days (there are three graphs) relative to the weight at the beginning of the period.

  The investigation has been published:

- Martell, M., et al, J. Early Human Development. 1:313, 1978.
- Martell, M., et al, Boletín de la Oficina Sanitaria Panamericana 86:95, 1979.
- Martell M., et al, Boletín de la Oficina Sanitaria Panamericana 1981.

4.2.1.6 Breast-feeding

- In the period covered by this evaluation a series of collaborative research projects have been carried out by various health agencies of Uruguay and CLAP, fundamentally epidemiological research. It was found that in Uruguay the practice of breast-feeding has been losing ground in this century, and in particular that weaning has been taking place increasingly earlier, as is happening in the rest of the Americas and perhaps throughout the world. In 1916, 90 per cent of the mothers fed their babies in the first postnatal month; by 1949, only 68 per cent did so; and by 1977, only 55 per cent; at the end of the seventh postnatal month, the respective figures were 50, 30 and 3 per cent.

- Studies of this type, carried out on 1,527 mother/child couples attending health centers and family allowance polyclinics, were used to identify the risk factors of failure to breast-feed or early weaning and to observe the beneficial influence of mother's milk.

The data are contained in CLAP publication 788, the authors of which are Drs. C. A. Bauza and J. L. Díaz Roselló, and we suggest that it should be widely distributed because of the epidemiological importance of the data.

4.2.1.7 Morphology of the placenta

- CLAP research workers, together with Dr. Hermógenes Alvarez of the Pereyra Rosell hospital, have developed and applied a

placental score as an index of the maturation of the trophoblast. It calls for the use of a phase contrast microscope, but correlation of the placental score obtained in 728 cases appears to point to clinical indicators of damage and their morphological cause.

The studies have been published in:

- Alvarez, H., et al, J. Brasilerio Ginec. 78:275, 1976.
- Jacomo, K. H., et al, Acta Diabetol. Latinoamericana, 13:216, 1976.
- Benedetti, W. L., et al, Acta Ginecol. (Spain) 30:87, 1977.
- Nasio, D., et al, XXIII Congreso Argentino Obst. Ginec. Buenos Aires, August 1979.
- Storch, E., Doctoral thesis, Faculty of Medicine, University of the Republic of Uruguay, January 1979, CLAP publication 800.

4.2.1.8 Perinatal management of prematurity

- This collaborative program, which is a clear example of the influence of CLAP in the Region of the Americas, deals with the classification and quantification of the perinatal problem. It should be pointed out that so far 55 maternity hospitals in 12 countries in the Region are participating in the program. The number of births covered by the study at present amounts to 300,000.

  The study shows that the average frequency of low birth rate (intrauterine malnutrition) is 8.9% and ranges from 15% (Vilanova Cachoerinha Hospital, Brazil), to 5% (Arica Hospital, Chile). The data are being processed to ascertain the frequency of prematurity.

- As already indicated, the results enabled the research workers to establish a norm for the appropriate antenatal and neonatal handling of the delivery of premature babies.

Published by:

- Schwarz, R., et al, Boletín de la Oficina Sanitaria Panamericana 88:359, 1980.

4.2.1.9 Standardization of medical records and analysis of perinatal health information

- This consists in the formulation of instruments for standardizing data collection, evaluation and management of perinatal problems, with a view to optimizing the provision of health services in the Member Countries and increasing coverage.

The instrument or instruments being developed and their experimental testing will provide guidelines for identifying factors characterizing high-risk pregnancies at the first prenatal consultation and will lay the groundwork for better management in the future.

This research project included a study of 10,000 consecutive deliveries in the Ramón Sardá Maternal and Child Health Hospital of Buenos Aires and, although the results are only valid for the population studied, the guidelines could be tested in other places in order to adapt them to local conditions.

The publications are:

- Belizan, J. M, et al, CLAP document 699, 1976.
- Díaz, A. G, CLAP document 846, 1949.

4.2.2 Analyze the importance of the research in relation to the objectives of the Center, the principles embodied in the work plan, and the policies and strategies of PAHO.

It follows from what has so far been said in this report that CLAP's program and activities closely adhere to the objectives set forth in the most recent agreement entered into with PAHO, and that, in addition, as stated earlier, they appear to be consistent with the new goals and objectives of the Organization and represent a very useful and worthwhile effort that should be taken into account in formulating the strategies of health for all by the year 2000.

By focusing on the family and basically on the mother/child binomium the results reported summarily above are in accordance with the mystique demanded by the Director of PASB (Bol. Ofna. Sanit. Panam. 90(4):342, 1981) and are directed towards the problem referred to by the Director General of the World Health Organization when he said "... today's children and those that have not yet been born but who will make up one third of the inhabitants of the world by the year 2000 will never pardon us if we do not achieve comprehensive health for all (Bol. Oficina Sanitaria Panamericana 90(4):340, 1981).

It is recommended that CLAP be commended on its work.

The Evaluation Team deemed it advisable to review the total production of the Latin American Center for Perinatology and Human Development so as to obtain an overall picture of the trends of this type of research.

Following discussions with staff members of CLAP, it was decided to consider five types of research:

a) Basic;
b) Clinical;
c) Appropriate technology;
d) Operational;
e) Epidemiological.

Next, a review was made with their assistance of the production during the 11 years of life of the Center, the results of which are contained in Table 1, Annex I.

During the early years, research was obviously aimed at basic knowledge and clinical medicine, with little emphasis on appropriate technology, operational research, and epidemiological research, but in the last three years a fairly reasonable balance has been achieved.

It follows that, although the characteristics of the first agreement and the prior experience of the team (coming from the former Obstetrical Physiology Department of the University of the Republic of Uruguay) enabled CLAP to carry out 88.3% of basic and clinical research, this percentage was reduced during the life of the last agreement to virtually half, namely 47.3%; on the other hand, research aimed at appropriate technology as well as operational and epidemiological research increased from 11.8% in the first agreement to 52.7% in the third.

This confirms the linkage of the objectives and activities of the Center with the purposes of the Organization.

4.3 Development of Human Resources Functions

With respect to the training of health personnel for Latin America, CLAP has been making a tremendous effort.

Proof of this is that during the five-year period 1976-1980, the subject of this evaluation, 69 courses were held; the duration of these courses was as follows: 31 for one week; 10 for two weeks; 1 for three months; 5 for 9-12 months; and 5 for 24 months.

In addition, individual training programs, with a duration ranging from 4 to 16 weeks, were prepared and conducted for 38 health workers. The trainees included physicians; specialists in gynecology and obstetrics, neonatology and pediatrics; nurse midwives and neonatal nurses; midwives; nursing auxiliaries; and laboratory assistants.

Tables 2 and 3 (Annex I) show the details of these activities as well as the type of course, and give a clear idea of their contents, the annual numbers of courses, participants, teaching load, and an estimate of the total number of student hours, which amounted to 974,434, i.e., the teaching effort of CLAP over the five-year period.

The number of fellows totaled 821. They came from the following countries: Argentina (143), Bolivia (3), Brazil (77), Colombia (22), Costa Rica (14), Chile (36), Nicaragua (4), Mexico (13), Panama (25), Paraguay (16), Peru (7), Dominican Republic (2), Venezuela (47), Uruguay (383), and Spain (9).

Furthermore, CLAP staff members, both internationally recruited (PAHO) and locally recruited, have given lectures outside CLAP, taken part at round tables, seminars, courses, and working meetings, and attended congresses in 18 countries in the Region of the Americas, as shown in Table 4 (Annex I).

The total number of such activities in the five-year period under review was 495 and the average student/hour ratio was 28,528 per annum.

4.3.1 Taking into account the significant indicators of the development of human resources that characterize the teaching effort of CLAP, the Evaluation Team is of the opinion that the Center has more than fulfilled the task entrusted to it and that it will undoubtedly have an impact on the provision of health services by trained personnel who use the same approach and are capable of multiplying the teaching in Latin America.

4.3.2 Analyze the extent to which the teaching activity of CLAP has encouraged the conduct of similar activities in the countries. What proportion of the courses have been organized in countries outside the Headquarters in Montevideo?

This question has been duly answered in the foregoing paragraphs and is clearly defined in Table 4 (Annex I).

The Evaluation Team is of the opinion that one of the greatest needs of the countries of the Region is appropriate training of their health professionals, and especially of those in charge of the health units for the most vulnerable group--the mother, the fetus and the child--from the time of birth to school age, without losing sight of the fact that they are not isolated in time and space but form part of the family and of the human group within a country. Thus the care of this nucleus must be based on the concept of comprehensive biological, psychological, social and cultural health.

Therefore, the Team believes that the courses will continue to meet a demand by the countries of the Region, especially if the authorities are aware of two things:

a) The demand that the program "health for all by the year 2000" establishes for them; and

b) The existence and potentiality of CLAP.

4.3.4 Suggest the types of training which, in the opinion of the evaluators, have been omitted and could be incorporated in the future.

Increase the number of courses organized in the countries, with the countries' own teaching resources, in which CLAP would provide guidance and encourage the development of national capacities.

However, the impression gained was that teaching in general is strongly biased towards the gynecological and obstetrical aspects of perinatology, and that it would be very advisable to balance it with pediatric approaches. We believe that the neonatologists of CLAP should assume more policy-making responsibility in the creche and in the Joint Accommodation Service of the Clinical Hospital so that they can have a demonstration and training area for care of the newborn. This aspect, which has clearly been diminishing little by little, should be restored to the level it had in the five-year period 1970-1975.

4.4 Functions of Technical Cooperation with the Countries

4.4.1 Estimate the amount of cooperation offered and required by the countries in the last five years.

It was made clear to the Evaluation Team that CLAP provides full and varied technical cooperation to the countries.

Table 5 (Annex I) shows the number of advisory services provided by CLAP staff members, both PASB staff members and local employees, to the countries of the Region.

If technical cooperation is measured by consultant days per country, it will be seen that Argentina has been the most favored, with 417 consultant/days, followed in decreasing order by Brazil, 411; Uruguay, 241; Venezuela, 186; Colombia, 152; Panama, 124; Mexico, 118; and Bolivia and Chile, 62 each. Then follows ten other countries in the Region, ending with Ecuador, which received only 2 consultant days in 1980.

These technical advisory services should perhaps be extended to other countries that do not receive them, or which receive a very small amount of them. Of course, this is attributable to the large distances that separate these countries from CLAP Headquarters.

4.4.2 To what extent was this cooperation in accordance with the objectives of the Center and of PAHO?

The Evaluation Team believes that this cooperation was in accordance with CLAP's own objectives and, taking into account the limitations imposed by the large distances, that it endeavored to fulfill the objectives of the Organization. The Team is of the opinion that the effort made is praiseworthy and that, given the present budgetary position and the uncertainty regarding tenure, CLAP could not be asked to do more.

4.4.3 Were there any mechanisms for regularly channeling CLAP cooperation through the regular PAHO channel?

The mechanism established consists of contact between the national group or institution and the authorities of the Ministry of Health. In turn, the Ministry of Health channels the requests to the PAHO Field Office and this in turn transmits them, together with its opinion, to the pertinent Division and to CLAP, which replies, taking into account the availability of the human resources required.

This procedure appears to be somewhat lengthy and complicated; however, the Team learned that, at the direct request of various health agencies in the requesting countries, CLAP helped them to obtain the support of the respective ministries and to apply to PAHO for such support.

4.4.4 To what extent has this cooperation helped create and develop national capacity and programs?

As a result of its work in manpower training and of on-the-spot demonstrations of the benefits of the procedures which CLAP research has validated, as well as demonstrations of their effectiveness and applicability at the three levels of care for family health in the last ten years, there has been a growing responsiveness in the medical profession and among other health professionals and the authorities responsible for providing the community with comprehensive care, toward the perinatal concept and toward more human, less technological care (from the point of view of sophistiction) and with better results for future citizens.

This has led, for example, to the establishment of perinatology centers in Brazil and has contributed--in an exchange action--to the establishment of the National Institute of Perinatology (DIF) in Mexico. Examples of similar emulation in other countries of the Region could be cited.

4.4.5 To what extent has the Center performed its planned functions in the diffusion of knowledge?

4.4.6 What amount and type of audiovisual material has been produced and how has it been distributed?

The information gathered by the Evaluation Team to answer these two questions is contained in Table 6 (Annex I).

The heavy emphasis the Center is putting on the primary level of perinatal care is clear.

The Evaluation Team wishes to draw attention to the excellent services--although they have not been fully utilized by the countries of the Region--of the CLAP library, which contains about 5,000 books and regularly receives 60 specialized journals dealing with modern perinatology.

In addition, it has a large collection of 19,640 off-prints of articles relating to the provision of health services, which range from very high sophistication to primary care with appropriate technology and simplified medicine.

At present the library is preparing annotated bibliographies whose distribution should be promoted by PAHO for the benefit of the health agencies of the countries of the Region, since they refer to not less than 58 items with 1,680 subdivisions. For 1981 the library has lists for:

i) Maternal mortality;
ii) Perinatal high risks:
    a) Smoking, alcoholism and maternal drug addiction;
    b) Maternal age (adolescence-mature age);
    c) Hypertensive conditions of pregnancy;
    d) Diabetes and pregnancy.

4.5 Administration

4.5.1 Have the administrative mechanisms mentioned in clause VI of the agreement been established? That is to say, has the Fellowship Committee and the Technical Advisory Committee regularly performed their functions?

The Director of CLAP informed the Evaluation Team that the Evaluation Committee (for the award of fellowships, among other things) functioned regularly when Dr. Richard Prindle headed the Division of Family Health and came to CLAP to meet with the representatives of the Ministry of Public Health and the University of the Republic of Uruguay.

Subsequently, the Director of CLAP has maintained continuous contact with these representatives of the Host Country, in the capacity of PASB representative. With respect to the Technical Advisory Committee, the Director of CLAP proposed a list of possible members in response to a verbal request from the Director of PASB.

The Evaluation Team reproduces the list of proposed candidates in Annex III.

4.5.2 What changes would be desirable in the future? Describe and justify them.

Following its analysis, the Evaluation Team wishes to suggest that the technical team of CLAP, composed of national and international professionals, clearly identify the functions, activities, and actions of the Center as well as their correlation with the structure of CLAP, and endeavor to define an organizational chart and a functional chart so as to provide both themselves and outsiders with an overall picture of the Center and to promote the smooth flow of the teamwork. This would make for better scheduling of activities and of communication between all members of the team.

4.5.3 If possible, mention any errors or limitations in the administration of the Center.

The Evaluation Team only wishes to state that the personnel in charge of this work are, of course, Uruguayans, and subject to considerable insecurity of tenure. As already pointed out, when the present Director retires, he will leave the Center. Consequently, and for the sake of the future administration, the Team suggests that methods of retaining these personnel be looked into. We refer the reader to Table 8 in Annex I, paragraphs 3 and 4.

4.6 Personnel

4.6.1 Prepare a list of existing personnel, including tables showing their professional background, occupational level, and nationality. Analyze these characteristics and relate them to the workload.

The self-evaluation document of CLAP (CLAP document 922, page 2 (2.6) to 13 (2.6)) contains a full description of the 55 staff members of the Center. The Evaluation Team believes it unnecessary to reproduce it here, and only wishes to submit Table 7 of Annex I, which shows: 1) professional category of the worker; 2) nationality; 3) salary by groups of workers, in dollars; and 4) weekly number of contract hours.

It should be noted: a) that four staff members are considered PASB consultants and 51, local employees; b) that the payment of the local employees is very irregular since officials in the same category and with the same contractual working hours receive different wages and salaries.

The work load reported above (research, teaching, information, technical cooperation, and assistance to national authorities) is such

that the Evaluation Team associates itself with the opinion of Dr. Sumedha Khanna, Chief of the Division of Comprehensive Health Services of PASB (ref. CHS/84/1 p. 2), namely:

> "The work team of CLAP--both national and international--is devoted to its work, which it carries out very efficiently, given the limited resources and difficult working conditions."

4.6.2 Make a projection of the research, teaching and technical cooperation activities for the next five years and relate it to the personnel needed at the various levels.

The Evaluation Team is of the opinion that, under present conditions, CLAP has reached an optimum level of operation and it would be advisable to maintain it.

Should a redirection be necessary, the area that should be strengthened is that which at present is becoming extremely important in the work of CLAP, namely, research on appropriate technologies from the point of view of the risk and structure of procedures for primary care in reasonable balance with the consequent secondary and tertiary care. In the opinion of the Evaluation Team, this constitutes the basis on which the Organization can develop its strategies for health for all by the year 2000, at least as regards one of the two most vulnerable groups, that of the mother and the child.

Should its financial resources be cut back, CLAP will have to reduce its activities and therefore reduce the size of its staff.

The Evaluation Team does not believe it advisable for the basic functions of CLAP, which fully comply with its own objectives and those of the Organization, to be funded by grants, since grants are of finite duration and very unstable, as shown in Table 7 and Figure 7 in Annex I.

4.6.3 Review training activities for CLAP staff members.

During the period under review, CLAP enabled its staff to attend seven training activities (five courses and two seminars), as shown below:

14-21 July 1976

O. Althabe and R. Schwarz attended the Course on Teaching Methodology at NUTES/CLATES.

15-30 October 1976

O. Althabe attended the Course on Medical Teaching at NUTES/CLATES, Mexico.

17-23 July 1977

R. Schwarz and A. G. Díaz attended the Course-Seminar on Top-Level Management (Area VI, Buenos Aires).

3-18 February 1979

S. M. Tenzer attended the Seminar on Health Information Systems, held in Washington, D.C., and visited a number of computer centers in the United States of America.

27-31 August 1979

R. Belitzky and A. G. Díaz attended the Course-Seminar on Teaching Methodology, NUTES/CLATES, PASB/WHO, Area VI, Colonia del Sacramento, Uruguay.

19-30 November 1979

W. Benedetti attended the Course on Educational Theory Applied to Health Sciences at NUTES/CLATES in Rio de Janeiro.

3-7 December 1979

W. Benedetti attended a Course on Group Dynamics in NUTES/CLATES in Rio de Janeiro.

In addition, as part of the continuing education program, the Division of Comprehensive Health Services of PASB processed and arranged for foreign professors to give lectures and small refresher courses, as follows:

- Eight professors from the United States of America: Norberto and Alicia Ferragoso, University of Tennessee (1977); Sal Schneider, San Francisco, California (March 1979); Richard Weinberg, University of California (April 1977); Louis Gluck, San Diego, University of California (October 1979); Chester Martins, University of Southern California (October 1979); Avroy Fanaroff, Western Reserve, University of Cleveland (December 1979); and Charles Hendricks, Chapel Hill, North Carolina (May 1980).

- Three professors from England: Alexander Turnbull, Oxford University (October 1979); John Scopes, University of London (October 1979); and John Dewhurst, University of London (May 1980).

- One professor from Spain: José M. Carreras, Autonomous University of Barcelona (December 1977).

- One professor from the Netherlands: Tom Eskes, University of Nijmegin.

- One professor from Mexico: Eduardo Jurado García, National Institute of Perinatology (DIF).

4.6.4 Interview personnel of different professional levels and obtain their opinion on their degree of satisfaction with their work and working conditions as well as their outlook and expectations regarding the future of CLAP.

The Evaluation Team prepared two questionnaires, one for the technical personnel and the other for administrative personnel (see Annexes I and II).

A summary of the results of these questionnaires appears in Table 8 of Annex I, which is self-explanatory.

An analysis of these results shows that:

1) The workers of the Center, both national and international, are gripped by a mystique that enables them to identify themselves with the work of the Center and to increase their sense of responsibility.

2) Local personnel face considerable instability of tenure and do not receive fringe benefits, which is not the case for international personnel.

3) The personnel is identified with the primary care approach and development of operational research.

4) All are proud to belong to CLAP and conscious of its work in the Region of the Americas.

5) Neither the national nor international personnel are keen on the Center becoming a national agency.

6) All wish to remain together and are confident that they can improve their performance.

4.6.5 In the opinion of the evaluators, to what extent should the Center continue with international personnel beyond 1982? What would be the ideal composition, in terms of speciality of staff members?

The Evaluation Team is of the opinion that CLAP, as at present constituted, is performing a fundamental function for the goals of PAHO.

Otherwise it suggests that CLAP be converted into a hybrid organization that is linked to the Department of Perinatology of Uruguay, under the Direction of Dr. Caldeyro-Barcia, and receive the benefits of the financial support and the international human resources attached to that Department so as not to diminish and lose the great benefits that are being obtained.

4.7 Finance and Budget

4.7.1 Analyze the budget by origin of funds. What amounts and proportions of extrabudgetary funds were received in the previous five years? Who were the donors and what was the connection between these extrabudgetary projects and the objectives of the Center and PAHO?

Table 10 in Annex I presents a comparison, since the establishment of CLAP, of the income by calendar year and the origin of funds (see Figure 7, Annex I).

It should be noted that the extrabudgetary contribution varies and consequently is not stable (see also Figure 7 in Annex I, which makes this very clear).

Table 11 (Annex I) analyzes, for only the five-year period covered by this evaluation, the increases in the regular budget of WHO/PAHO, which ranged from -1.0% in 1977 to 9.48% in 1978 (compensatory), and for the five-year period show an average increase of 5.24%, which is far from the acceptable increase of 7.9% in the PAHO budget for this type of center.

The Evaluation Team deemed it advisable to obtain information and ascertain once and for all the approximate amount of the contribution of the Clinical Hospital and of the Medical Faculty of the University of the Republic of Uruguay to CLAP, at least in 1980 (see Table 12, Annex I).

It is interesting to note that this "invisible" contribution amounted in that year to more than US$400,000.

Table 13 of Annex I shows the distribution of the annual expenditures of CLAP during the five-year period under review.

It shows that the expenditures by item are reasonably distributed in terms of the general administrative guidelines.

Finally, to show the human side of the financial aspects, the Evaluation Team submits to the authorities for consideration Table 14 of Annex I, which analyzes the trend of the purchasing power of the wages and salaries of the local employees of CLAP.

4.7.2 Examine whether the distribution of the budget is in line with the expected activities of the Center. Apply this criterion on both to the regular budget and to extrabudgetary funds.

An analysis of the data shows that there is an excellent relationship between expenditure and income, and that the cost/benefit ratio is positive.

It would be advisable for the basic programs of PAHO not to rely on extrabudgetary funds.

4.8 Physical Facilities and Equipment

4.8.1 CLAP's Headquarters is located on the 15th and 16th floors of the Dr. Manuel Quintela Clinical Hospital of the University of the Republic of Uruguay. In agreement with the Director of the Clinical Hospital (University), the Faculty of Medicine and the University have provided CLAP with a large part of floors 15 and 16, as well as of the basement, covering a total floor area of 4,160 m^2 (see Figures 8,9 and 10 in Annex I).

Description of the premises of CLAP:

16th Floor

1) Office of the Director
2) Secretaries office
3) Accounts
4) Photography, drafting, x-ray film library, and classified slide albums
5) Files and assembly of slides and films
6) Mimeographing
7) Restrooms
8) Cloakrooms of employees
9) Store rooms
10) Office
11) Electronics workshop
12) Workshops for the development of appropriate technologies
13) Seminar and meeting room
14) Offices of professional personnel
15) Classroom

15th Floor

1) Library
2) Classroom for fellows
3) Offices for fellows

Basement

The data processing unit of CLAP is located in the basement of the Hospital and occupies a floor area of 400 m^2. It is connected with the 15th and 16th floors through a computer terminal.

In addition to these facilities, CLAP is able to use the meeting rooms for international meetings; these rooms can accommodate a large number of people. They are located on the 3rd floor and are especially designed for symposia and workshops, which require several separate rooms for group work. These facilities also have space for secretaries and support services. The physical facilities of the 3rd floor are the equivalent to what CLAP has on the 16th floor.

4.8.2 The facilities described are very suitable for the various intramural activities of the Center.

4.8.3 All the equipment is in good operating condition. It is maintained by the CLAP Maintenance and Repair Unit. For that purpose the maintenance manuals provided by the suppliers are available. The personnel in charge of handling this equipment have been specially trained.

4.8.4 In 1980, the W. K. Kellogg Foundation provided CLAP with funds for purchasing a data processing unit for storing and processing health information. This unit now needs a plotter for making histograms, scatter diagrams, and others, on the basis of digital information (it will be purchased in 1981 with W. K. Kellogg funds).

All the publications printed in CLAP are collated by hand. This creates enormous difficulty since the personnel have to be taken off other work for this purpose. Accordingly, CLAP needs to buy an automatic collater.

4.9 Coordination

4.9.1 The relations between the PAHO field office in Uruguay have been excellent and close, and CLAP and the Field Office have always worked closely together and have had at least one meeting a week. The Area VI Field Office has always cooperated when requested to do so, and has facilitated the work of CLAP in the Area.

Relations with the Minister of Public Health, Dr. Antonio Cañellas, are excellent. He has always given maximum support to the activities of CLAP, especially the project carried out in Cerro Largo. Good cooperation has been provided by the Heads of Division of the Ministry of Public Health. Worthy of mention is the outstanding

assistance provided by the Cerro Largo Departmental Health Directorate (Col. (Rtd) Bernardo Díaz and Dr. Eduardo Gamio), as well as the genuine interest expressed by staff members in Rio Branco.

The Director of the Clinical Hospital has always enthusiastically cooperated with CLAP. Recently he transfered to it the premises now occupied by the data processing unit in the basement of the Hospital, and he pays a large part of the wages of the eight staff members of that unit. Earlier he had transferred the room used as a classroom for fellows on the 15th floor and the adjacent offices for fellows.

4.9.2 CLAP plays no part in the other PAHO projects in Uruguay. CLAP is beginning to obtain more assistance from the personnel of AMRO-5103 for the Cerro Largo project. The CLAP staff members taking part in the Cerro Largo project are waiting to be called to provide technical cooperation to projects being organized at the regional level by AMRO-5103.

4.9.3 CLAP will provide the most enthusiastic cooperation (only limited by the serious and growing financial restrictions) to all projects connected with the Division of Comprehensive Health Services (or other PASB divisions) when requested to do so.

The Evaluation Team asked the PASB Field Office and the Director of CLAP to arrange interviews with the following: Minister of Health, staff of Social Security, Dean of the School of Medicine, Director of the Clinical Hospital, and Professor of Gyneco-Tocological Clinical Medicine.

The impressions gained by the Evaluation Team from the above-mentioned interviews are set forth in Table 9 (Annex I), which is self-explanatory.

It should be pointed out that, locally, that is to say, in Uruguay, CLAP has increased its area of influence, with the result that its technical cooperation has been requested by the staff of the General Directorate of Social Security of Uruguay (memorandum No. 217/A/80 of 23 October 1980 to the Minister of Labor and Social Security by the Director General of Social Security) and this was authorized in the Note No. 7343 Reference 19816/80,OA of 14 November 1980 that the Minister of Public Health sent to the WHO/PAHO Representative in Uruguay.

4.10 Prospects

4.10.1 Do the maternal and child health priorities in the Region indicate more or less priority for the action area of this Center?

The conclusion of the Evaluation Team is that the health priorities of the family aimed at the most vulnerable group--the mother, the fetus, and the newborn--whose risk must be reduced if the goal of

health for all by the year 2000 is to be attained, continue to be valid in the Region.

Therefore, the action area of CLAP must be preserved and even expanded, and a network of PAHO Collaborative Centers in the perinatal area should be created around CLAP as and when these are established in the countries and warrant that designation.

4.10.2 Will the technical cooperation requirements of the countries remain the same, or have they already developed their own capacity?

The conclusion of the Evaluation Team is that, for the time being, it is not possible to say when the countries of the Region will develop their capacity to provide perinatological services (with the perinatal concept given in the frame of reference of this evaluation) that their inhabitants require.

Therefore, the technical cooperation requirements of the countries will not only persist at the same level, but will have to be increased.

4.10.3 What would be the ideal proportion between teaching, research and technical cooperation activities in the next two years?

In the light of the information gathered and analyzed, the Evaluation Team concludes that the priority needs of the countries of the Region, whether developing or underdeveloped countries, are:

1) Research on the quality and magnitude of the health problems affecting the population, with the characteristics which conditions in each country give them that ensure that solutions cannot be transplanted from highly developed countries since the results will not always be satisfactory in the long term.

2) Teaching aimed at solving the problems that research has identified, with appropriate technology and the efficiency local research has validated. Teaching should be aimed at:

   2.1 The activities responsible for the bio-psycho-social welfare of the communities;

   2.2 Professional and/or lay personnel that provide health services;

   2.3 The community itself, at making it aware of its capacity to solve its own problems.

3) Efficient use of resources: human, financial and technological.

In conclusion, it would appear that, in the next five years, CLAP could divide its activities in the Region as follows:

40 per cent: Research activities
40 per cent: Teaching activities
20 per cent: Operational activities

4.10.4 What are the possibilities of the Host Country taking over the present functions of CLAP through a national center?

The opinions expressed by the health authorities and the national and international staff members of CLAP led the Evaluation Team to conclude that:

For the time being there is no possibility of the present dimensions of CLAP being preserved through a national center that would totally absorb CLAP (personnel, national and international programs, and equipment and maintenance needs).

If it were to become a national center, it could only be a Department of Perinatology in the Clinical Hospital of the Faculty of Medicine of the University of the Republic of Uruguay; such a situation would obviously substantially reduce the present capacity of CLAP for providing international services, and would only benefit the country if the pertinent agreements were made with the Ministry of Health and the Social Security Department. Although such agreements exist, they would need to be renewed if the legal position of CLAP were changed.

4.10.5 What are the future options for this Center?

In response to this question and in summarizing what is set forth in the text of this Report, the Evaluation Team wishes to suggest the following, in order of priority of benefit to the countries of the Region:

1) That PAHO endeavor to preserve the present characteristics of CLAP, in view of its excellent work and the great benefits it has achieved in its 11 years of existence at a very low cost.

2) Should this not be possible for internal reasons, the alternative then is gradual transformation into a national center.

We should like to state the following:

The authorities of the Host Country are willing to accept the existence of a Department of Perinatology in the Clinical Hospital, based on the assets, human resources, and national program of CLAP, under the direction of the Present Director of CLAP. Consideration should be given

to the possibility of the Organization continuing its financial support and the support of its international staff for specific research (appropriate technology, epidemiology, clinical and basic) training and teaching and risk approaches programs in order to continue to meet the demands of the countries of the Region.

3) Efforts should be made to ensure that the Member Countries--at least some of them--develop their potential for establishing national centers, and then establish a network of Collaborative Centers in the perinatal area, which would be of undoubted importance for the future plans of the Organization, as the Director General of WHO so stated recently.

Preserving its present dimensions and characteristics, CLAP could be considered the lead center.

Annexes

ANNEX I

Figure 2

Obstetrical chair designed by CLAP for care during the expulsive period of delivery; its use has been disseminated in a number of countries of the Region of the Americas

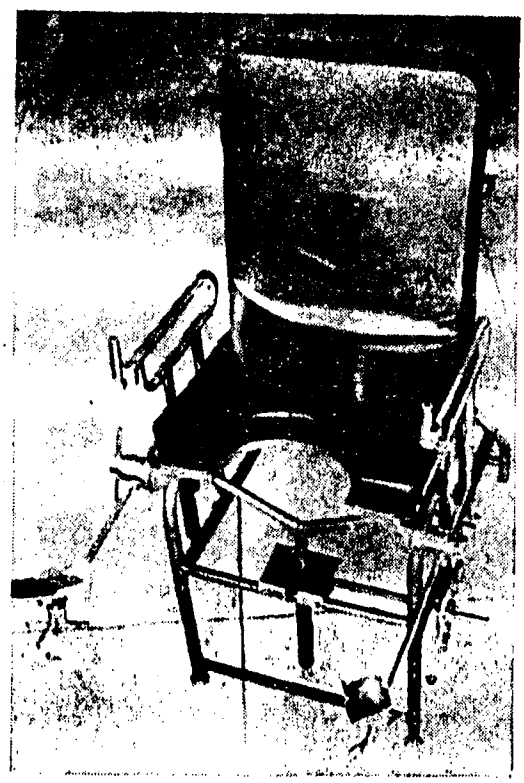
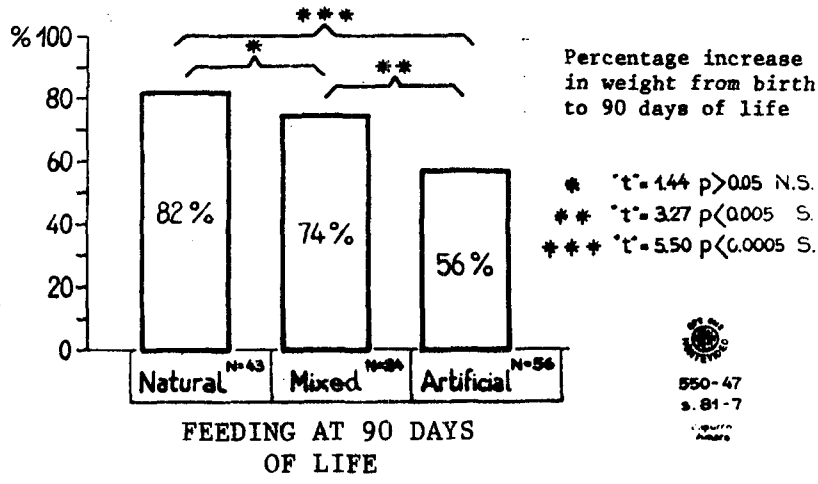


Figure 3

Influence of breast-feeding on the conditions of the newborn



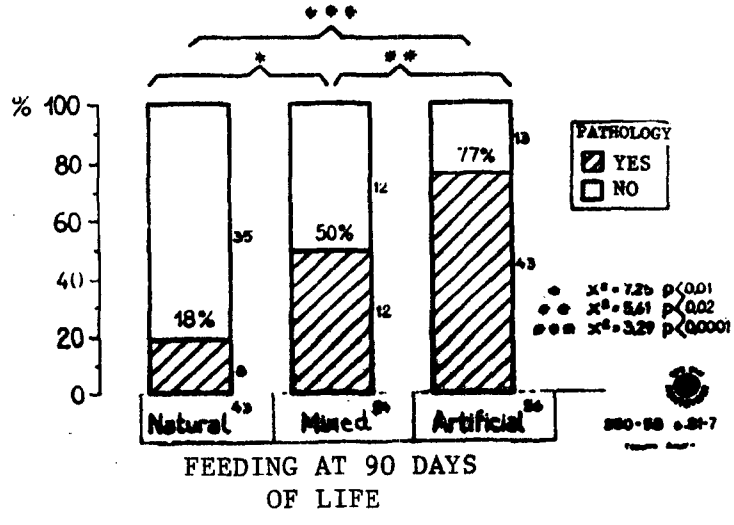


Figure 4

Program: Perinatal Management of Prematurity

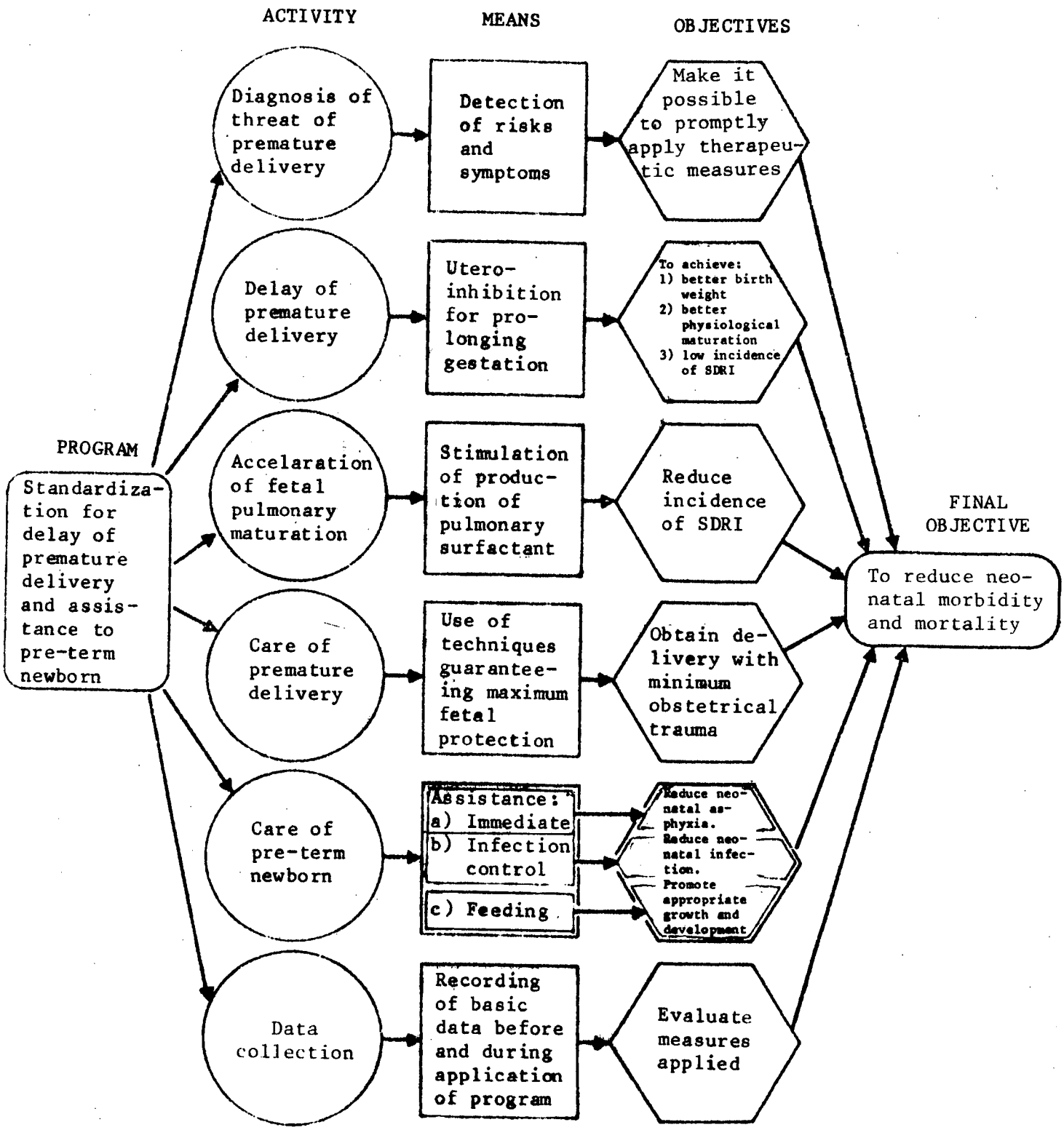
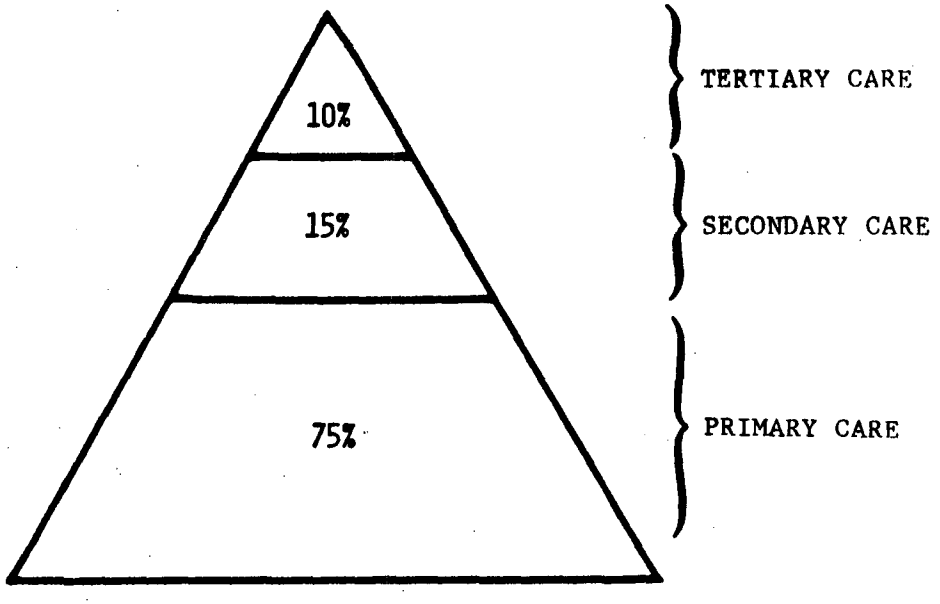


Figure 5

Quantification of the levels of provision of
health services to the community

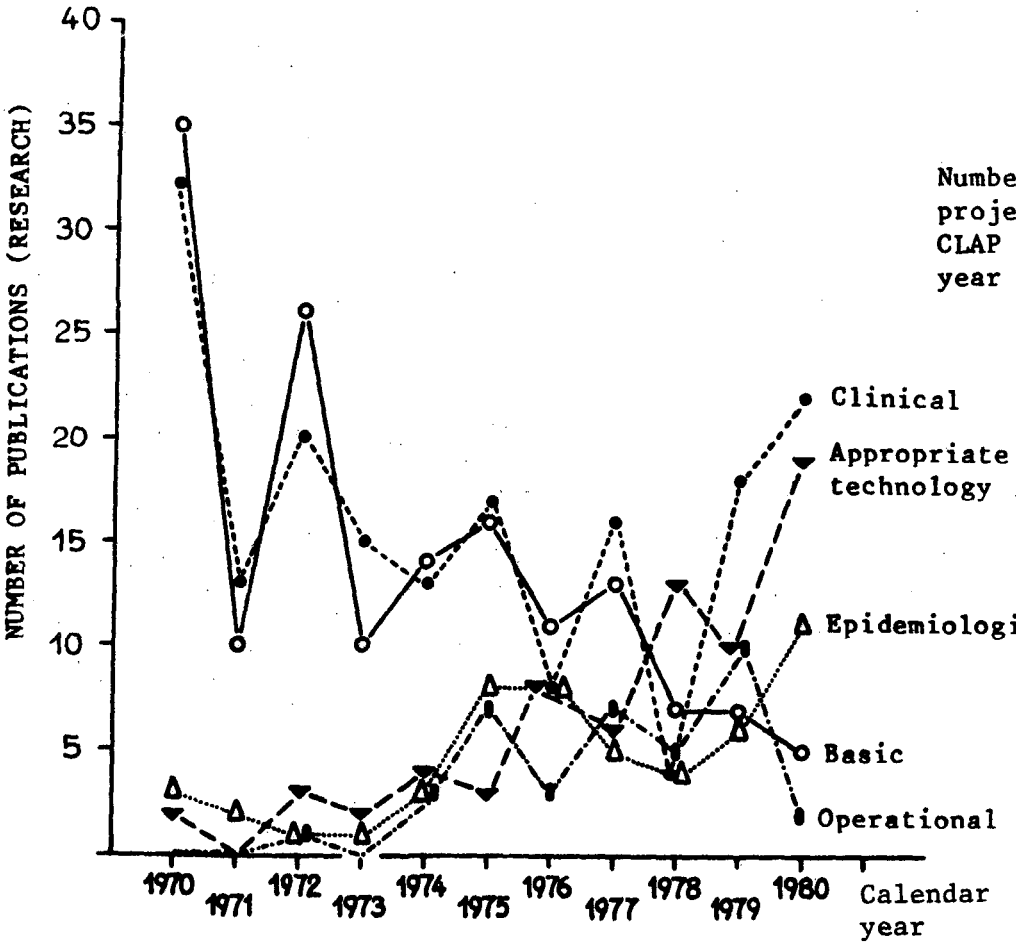
QUANTIFICATION OF LEVELS OF PROVISION OF
HEALTH SERVICES TO THE COMMUNITY



SOURCE: Crude data obtained from the CLAP program entitled
"Cerro Largo and Treinta y Tres"

JURADO/SAYEG
1981

Figure 6

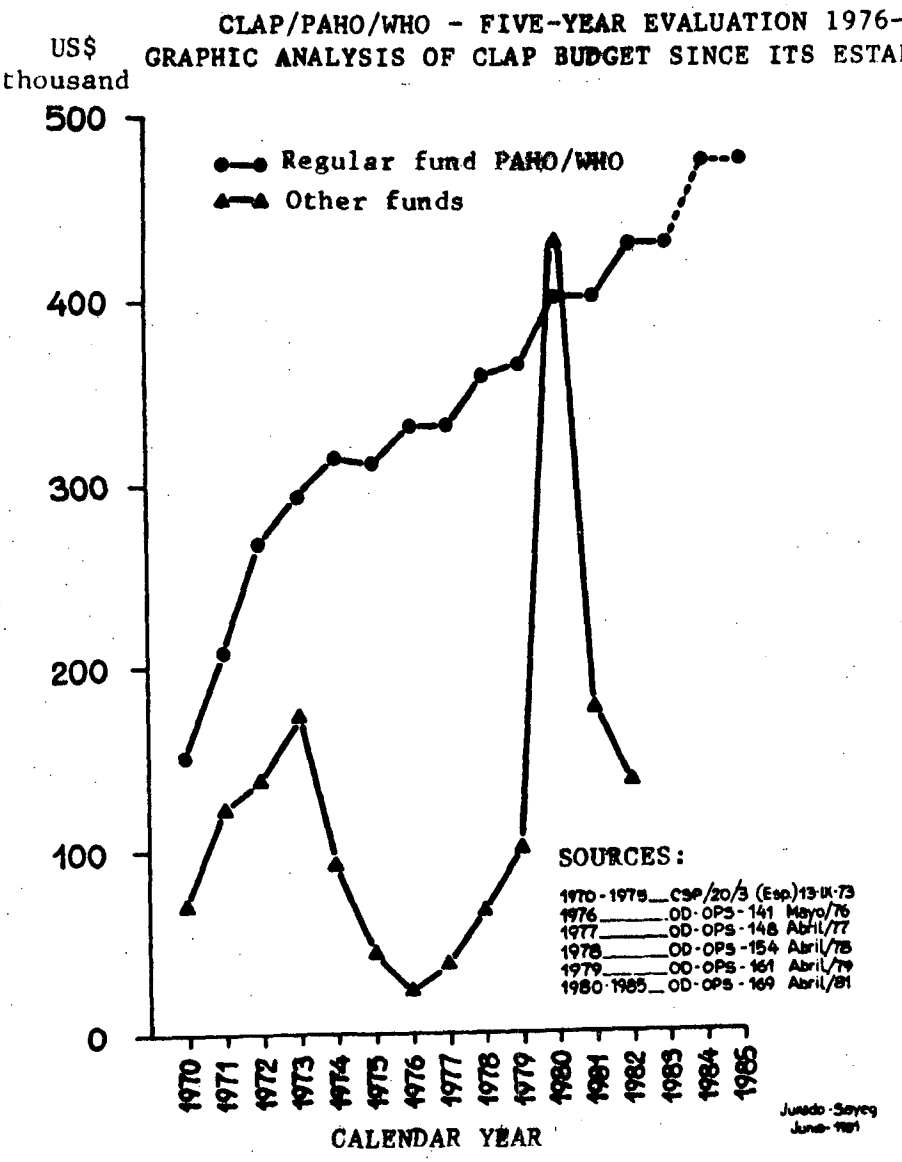


Number and type of research projects carried out in CLAP and published each year in the period 1970-1980

SOURCE:
Documents
CLAP 8-76 and
CLAP 622 Chapter V
CLAP 881

Figure 7

CLAP/PAHO/WHO - Five-year evaluation 1976-1980
Graphic analysis of CLAP budget since its establishment



LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT

PHYSICAL FACILITIES: 16th FLOOR

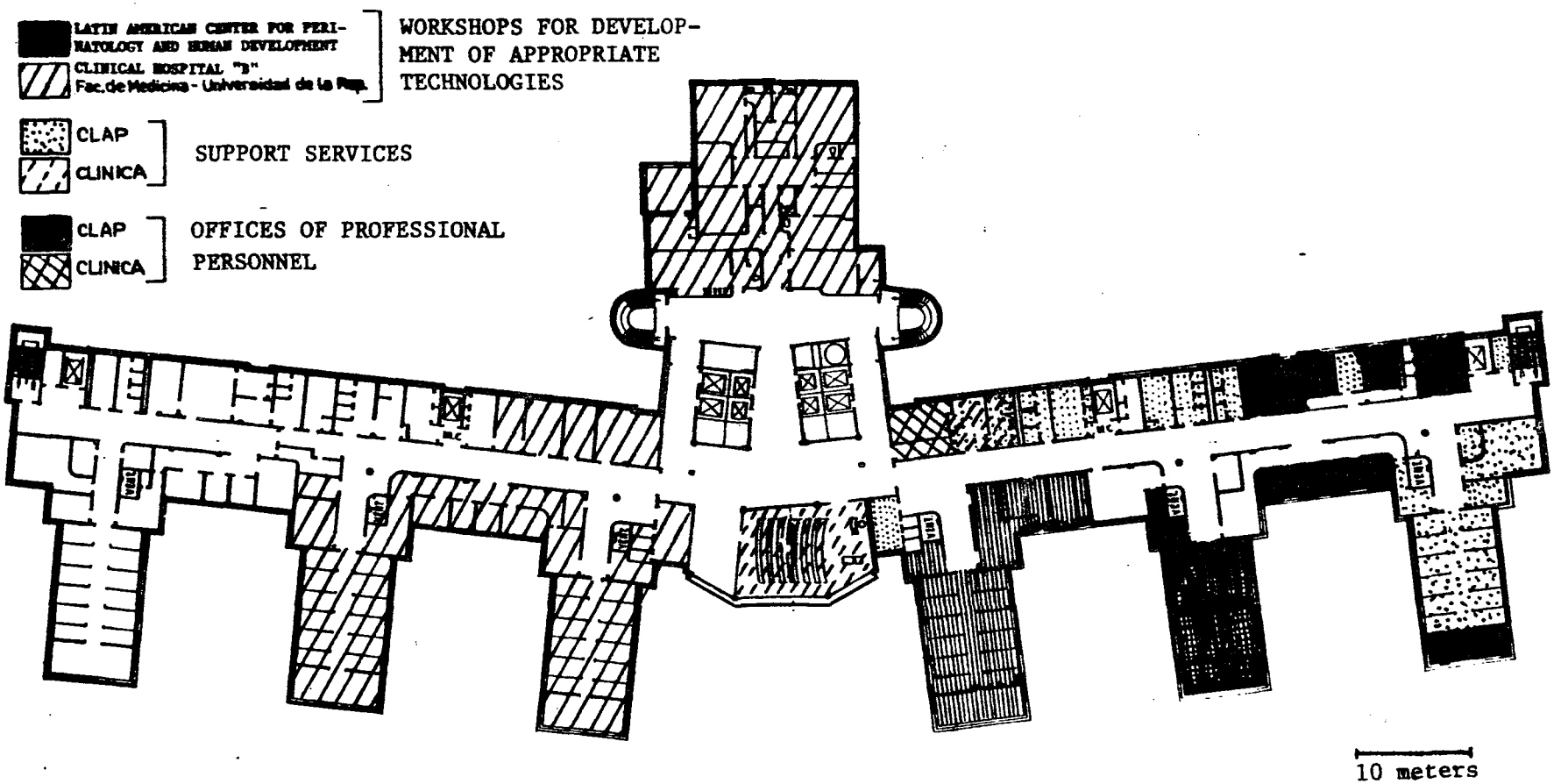


Figure 8

LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT

PHYSICAL FACILITIES: 16th FLOOR

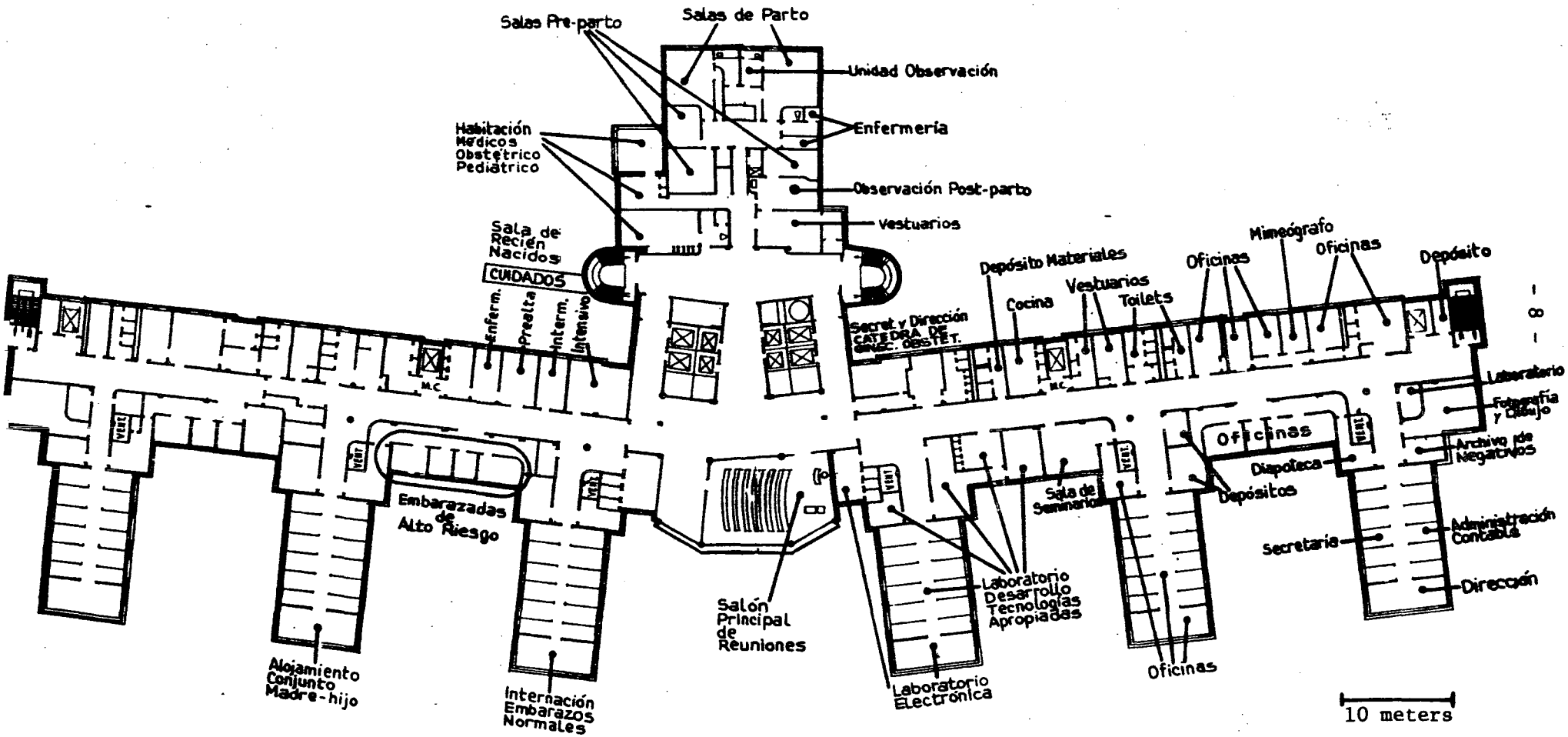


Figure 9

LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT

PHYSICAL FACILITIES: 15th FLOOR

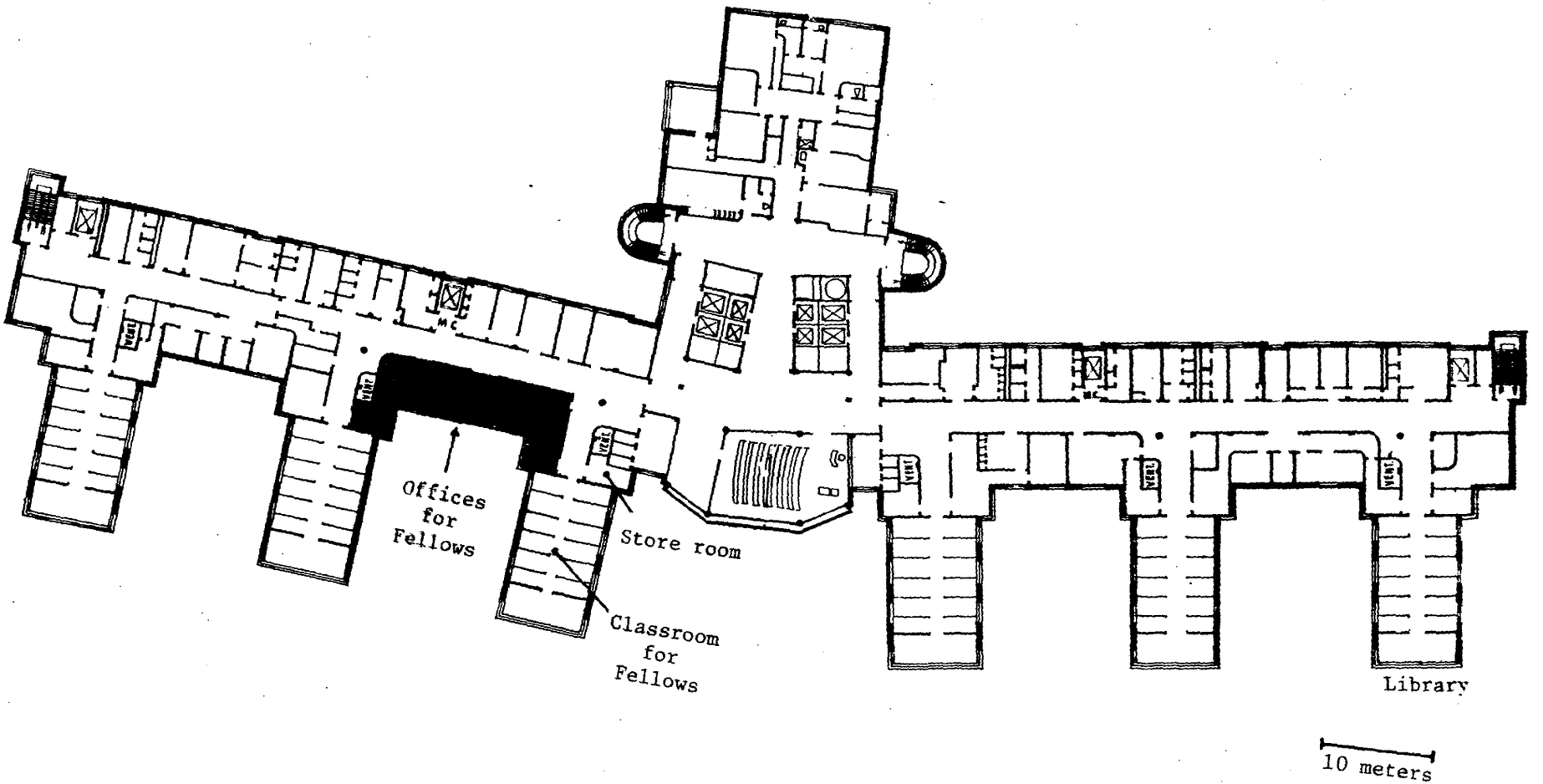


Figure 10

Table 1

Analysis of the trend of the type of research projects carried out by CLAP since its establishment (1970-1980)

YEAR	TYPE OF RESEARCH PROJECT CARRIED OUT					TOTAL
	Basic	Clinical	Appropriate Technology	Operational	Epidemiological	
1970	35	32	2	-	3	72
1971	10	13	-	-	2	25
1972	26	20	3	1	1	51
1973	10	15	2	-	1	28
1974	14	13	4	3	3	37
1975	16	17	3	8	7	51
1976	11	8	8	3	8	38
1977	13	16	6	7	5	47
1978	7	4	13	5	4	33
1979	7	18	10	10	6	51
1980	5	22	19	2	11	59
TOTAL	154	178	70	39	51	492

SOURCE: Documents: DI-CLAP 8-76
CLAP 622 Chapter V
and CLAP 881

Table 2

Trend of CLAP research

Type of research	Agreement EV-AGR URU-4102 %	Agreement ST/AGR AMRO-4920 %	Agreement SSA AMRO AMRO-1370 %
Basic	45	28	11
Clinical	44	26	36
Appropriate Technology	5	18	26
Operational	2	14	11
Epidemiological	4	14	16
Total studies	213	169	110

Table 2 (bis)

Teaching functions - training of personnel
Hourly workload in five-year period 1976-1980

Type of course in CLAP	Duration	No. Courses	Hourly workload per year					Total hours in 5-year period
			1976	1977	1978	1979	1980	
1. Scientific bases of comprehensive care of mother, fetus and newborn	12 m.	3	1920	1920	1920	-	-	5 760
	9 m.	2	-	-	-	1440	1440	2 880
								8 640
2. Training in research on perinatal medicine	12 m.	1	1920					1 920
	24 m.	4		3840				
					3840			
						3840		
							3840	15 360
								17 280
3. Appropriate technologies for perinatal and maternal and child care	1 s.	6	40	40	40	40	80	240
4. Appropriate nursing and midwifery technologies for perinatal and maternal and child care	2 s.	5	80	80	80	80	80	400
5. Introduction to ultrasound in perinatology	1 s.	4	-	40	40	40	40	160
6. Complete course in ecography in perinatology	3 m.	1	-	-	-	-	480	480
7. Biostatistics and computer science as applied to the perinatal area	2 s.	2	-	-	-	80	80	160
8. Introduction to perinatal and maternal and child public health	2 s.	3	-	-	80	80	80	240
9. Tutorial courses with independent programs	13 s.	5	2600	-	-	-	-	2 600
	4 s.	2	-	320	-	-	-	320
	4.5 s.	7	-	-	1280	-	-	1 280
	3 s.	4	-	-	-	520		520
	8.5 s.	20	-	-	-	-	6680	6 680
								11 400
TOTAL HOURS	-	69	6560	6240	7280	6120	12800	39 000

SOURCE: Self-evaluation of CLAP, May 1981.
The arrow indicates the beginning and end of the activity.

Table 3

Five-year evaluation - 1976-1980

Number of participants by course and number of student/hours

Type of course in CLAP	No. of participants in the 5-year period TOTAL	Student/Hours in 5-year period TOTAL
1. Scientific bases of comprehensive care of the mother, fetus and newborn (12 months and 9 months)	59	509,760
2. Training in research on perinatal medicine (24 months)	16	276,480
3. Appropriate technologies for perinatal and maternal and child care (1 week)	206	49,440
4. Appropriate nursing and midwifery technologies for perinatal and maternal and child care (2 weeks)	146	58,400
5. Introduction to ultra-sound in perinatology (1 week)	114	18,240
6. Complete course in ecography in perinatology (3 months)	4	1,920
7. Biostatistics and computer science aplicable to the perinatal area (2 weeks)	77	11,840
8. Introduction to perinatal and maternal and child public health (2 weeks)	154	36,960
9. Tutorial courses (individual) with independent programs (4-16 weeks)	38	11,394
TOTAL	821	974,434

SOURCE: Self-evaluation of CLAP, May 1981

Table 4

Training activities in the Americas (1975-1980)

Activities / Country	Lectures	CLAP Seminars	CLAP Courses	Attendance at Congresses	Working Meetings	TOTAL FOR EACH COUNTRY	INVESTMENT IN STUDENT/HOUR IN EACH COUNTRY
$\bar{x}$ Duration in hours	1 hour	16 hours	40 hours	1 hour	8 hours		
$\bar{x}$ No. participants	100 particip.	50 assistants	50 students	100 assistants	20 participants		
Argentina	71	13	9	7	5	105	37,000
Bolivia	10	-	1	1	-	12	3,100
Brazil	67	8	10	16	4	105	35,340
Chile	34	-	-	4	-	38	3,800
Colombia	13	1	4	3	2	23	10,720
United States	27	-	-	-	1	28	2,860
Guatemala	3	-	1	-	1	5	2,460
Honduras	12	-	1	2	-	15	3,400
Mexico	14	-	1	1	2	18	3,820
Panama	26	3	2	-	2	33	9,320
Paraguay	14	-	2	2	-	18	5,600
Peru	3	-	-	-	-	3	300
Puerto Rico	-	-	1	-	-	1	2,000
Dominican Republic	-	-	1	-	-	1	2,000
El Salvador	4	-	1	-	-	5	2,400
Uruguay	40	4	2	5	1	52	11,860
Venezuela	27	2	1	2	1	33	6,600
TOTAL	365	31	37	43	19	495	
TOTAL student/hours	36,500	24,800	74,000	4,300	3,040	142,640	142,640

SOURCE: Self-evaluation of CLAP, CLAP document 922.

Table 5

Five-year evaluation - 1976-1980
Technical cooperation to the countries of the Region

Year / Country	Technical Cooperation					Total Consultant Days by Country
	1976	1977	1978	1979	1980	
Argentina	59	61	89	91	117	417
Bolivia	16	15	10	21	--	62
Brazil	17	57	180	97	60	411
Chile	--	14	26	6	16	62
Colombia	76	24	4	12	36	152
Costa Rica	15	--	2	--	--	17
Ecuador	--	--	--	--	2	2
Guatemala	--	11	22	5	5	43
Honduras	--	19	12	8	2	41
Jamaica	--	--	--	--	4	4
Mexico	47	--	33	9	29	118
Panama	15	13	32	23	41	124
Paraguay	4	3	9	12	1	29
Peru	--	7	6	--	--	13
Puerto Rico	--	--	14	--	--	14
Dominican Republic	--	--	16	--	--	16
El Salvador	--	--	13	--	--	13
Uruguay	10	20	25	60	126	241
Venezuela	65	64	32	14	11	186
Total consultant days per year	324	308	525	358	450	1965

SOURCE: Narrative report of CLAP activities.
CLAP 756, 1976, 1977; CLAP 804, 1978;
CLAP 861, 1979; AMPES, 1980.

Table 6

Production and distribution of audiovisual material by application to levels of complexity

TOPIC	Number of slides usable at the following levels			
	Primary	Secondary	Tertiary	Total
- Feeding and mother/child relationship	205			
- Standardization premature/pre-term	180			
- Perinatal clinical history	170			
- Obstetrical physiology	210			
- Physiology of normal delivery	336			
- Regionalized perinatal care	117			
- Organization of neonatal care	25			
- Joint accommodation (mother and newborn)	61			
- Simplification of methods/determination of gestational age of newborn	28			
- Chronic fetal suffering (during pregnancy)		90		
- Oxytocin		198		
- Control of infectious diseases in newborn		23		
- Cardiorespiratory adaptation of newborn		29		
- Maturation of fetal lungs		121		
- Neurological examin. of the newborn		211		
- Normal and pathological postnatal growth		30		
- Amniotomy			81	
- Uteroinhibition			30	
- Perinatal high risk			40	
- Placenta			250	
- Acute fetal suffering			91	
- Revival of depressed newborn			18	
- Respiratory difficulty symptom of newborn			71	
- Ecography			70	
TOTAL	1332	702	651	2685

SOURCE: CLAP 922.

Table 7

CLAP staff, monthly wage budget, hours contracted and month/hour cost

Professional Category	CLAP Personnel		Monthly Salary (US$)		Weekly hours contracted
	International	National	Int'l(incl. fringe benefits)	National net of fringe benefits	
Obstetrician perinatologist	3	5	16,408	3,631	200 hrs.
Pediatrician perinatologist	1	3		2,383	100
Pediat. pub. health worker		1		645	20
Physician biochemist		1		1,291	40
Phys. physiolog. perinatolog.		2		1,503	80
Physician biostatistician		1		830	40
Midwife		2		897	80
Nursing auxiliary		1		322	45
Laboratory assistant		1		356	40
Laboratory technician		1		103	10
Bookkeeper		1		200	5
Administrative officer		1		511	40
Administrative supervisor		1		527	30
Administrative clerk		1		295	25
General services clerk		1		233	40
Secretary		5		2,016	188
Photographer		1		453	27
Draftsman		1		484	40
Audiovisual		1		491	28
Electronics		3		1,170	90
Cleaning		3		482	95
Library		5		1,220	124
Computer science		9		3,344	250
TOTAL	4	51	16,408	23,387	Weekly/ 1,637 hours

Costs/ hours/month	National:	US$3.6/hour
	Internat'l:	US$25.6/hour

Remark: A month is considered to consist of 4 weeks of 5 days.

SOURCE: Self-evaluation of CLAP - 922 (2.6) pp. 4-13.

Table 8

Summary of results of the survey of CLAP personnel, May 1981

No.	Principal Areas Identified in the Survey	CLAP PERSONNEL SURVEYED: Physicians (15)* PAHO (4)	Physicians (15)* Local (11)	Midwives (2) Laboratory (2) Nurse (1)	Technicians (8)	Data Processing (11)	Library (5)	Secretarial (8)	Fellowship holders ** (4)	Total Surveyed (54)
1	Awareness of purposes of CLAP	All	Most	Some	All	Only Chief	All	All	All	
2	Commitment to work	All	All	All	All	All	All	All	All	All
3	Time employed at the Center:									
	3.1 less than 1 year	-	-	-	-	4	-	-	-	4
	3.2 1.1 to 2.0 years	-	-	-	-	5	2	-	(4)	7
	3.3 2.1 to 5.0 years	-	5	1	1	-	-	2	-	9
	3.4 5.1 to 10.0 years	2	3	4	-	1	1	2	-	13
	3.5 more than 10 years	2	3	-	7	-	2	4	-	18
4	Tenure	Yes	No	No	No	No	No	No	-	No
5	Employment benefit	Yes	No	No	No	No	No	No	-	No
6	Purchasing power of remuneration	Adequate	Low	Low	Low	Low	Low	Low	-	Low
7	Understanding of "primary care" concept	Vague in some	Clear in most	Clear	Clear	Clear	Clear	Clear	Very clear	Clear in most
8	Influence of CLAP on improvement of health in the country	Contructive	Constructive	Constructive	Constructive	Constructive	Constructive	Constructive	Constructive	Constructive
9	Influence of CLAP in Latin America	Definite	Definite	Constructive	Constructive	Constructive	Definite	Definite	Highly constructive	Constructive
10	Conversion of CLAP into national agency	Questionable	Inappropiate	Inadvisable	Inadvisable	Questionable	Inadvisable	Questionable	Inadvisable	Inadvisable
11	Suggestions for the future	- Not to close CLAP. - Consider possibility of composite local/ international center.	- Increase number of fellowships of shorter duration. - Increase collaborative and applied technology studies.	- PAHO should not waste the investment of 11 years in CLAP. - Increase the number of fellowship holders and shorten their training to 12 months.	- Let CLAP not become a national agency.	- More field projects be undertaken (Cerro Largo and Treinta y Tres).	- That the highly qualified staff of CLAP not be lost.	- Improve personnel information. - Upgrade remunerations.	- Make national health ministries aware of the work of CLAP.	

* The numbers in parentheses refer to the numbers of persons surveyed.
** Fellowship holders are not regarded as staff members.

SOURCE: Data obtained from staff members and fellowship holders of CLAP during visit by Evaluation Team in May 1981.

Table 9

Summary of interviews with authorities in Montevideo, Uruguay, concerning CLAP

A R E A	Minister of Health	PASB Representative	Social Security Personnel	University of Rep. of Uruguay		
				Dean	Director Clinical Hospital	Professor Gynecology-Obstetrics
1. Usefulness of CLAP through:						
Research	Yes	Yes	Yes	Yes	Yes	Yes
Teaching	Without doubt	Yes	Yes	Yes, created neonatology	Yes	Yes
Technical cooperation	Excellent	Yes	Yes	Yes	Yes	Yes
2. Viability of CLAP						
a) with present dimension	Advisable	Recommendable	Yes	Of course	Useful	Yes
b) as national center	Qualified	Doubtful	Doubtful	Limited	Limited	Advisable
c) as mixed center	Yes	Yes	Yes	Yes	Yes	Yes
3. International standing						
a) in present conditions	Definite	Definite	Obvious	Yes	Definite	Yes
b) in other conditions	Depends on condition	Depends on type of support	Doubtful	Difficult to specify	Doubtful	Would disappear

SOURCE: Interviews with authorities

Table 10

Analysis of annual budget of CLAP since its foundation, by origin of funds

YEAR	PAHO/WHO Budget		Other Funds*		Annual Budget	
	US$	%	US$	%	US$	%
1970	150,083	67.3	72,794	32.7	222,877	100
1971	209,928	63.4	121,157	36.6	331,085	100
1972	267,449	65.9	138,406	34.1	405,855	100
1973	295,038	57.6	173,117	42.4	408,155	100
1974	314,482	76.8	94,354	23.2	407,467	100
1975	312,398	68.6	143,143	31.4	455,541	100
1976	333,431	93.2	24,542	6.8	357,973	100
1977	330,109	89.4	39,073	10.6	369,182	100
1978	361,400	84.1	68,226	15.9	429,626	100
1979	368,900	78.7	100,150	21.3	469,050	100
1980	401,900**	48.2	431,444	51.8	833,344	100
1981	401,900	69.2	179,078	30.8	580,978	100
1982	433,250**	76.0	136,778	24.0	570,028	100
1983	433,250	-	?	-	-	-
1984*	480,500**	-	?	-	-	-
1985*	480,500	-	?	-	-	-

* Other funds: ILAFIR, Population Council, Sandoz, Plamirh, Clabir, Kellogg

** Proportional distribution assumed

*** Budget considered preliminary draft

SOURCE: For 1970-1975 - CSP/20/3 (Sp.) 13-IX-73
1976 OD-PAHO-141 May-76
1977 OD-PAHO-148 April-77
1978 OD-PAHO-154 April-78
1979 OD-PAHO-161 April-79
1980-1985 OD-PAHO-169 April-81

Table 11

Analysis of annual increase in regular budget of PAHO/WHO for CLAP

Year	Regular Budget PAHO / WHO		Annual Increase (%)
1976	333	431	6.73
1977	330	109	-1.00
1978	361	400	9.48
1979	368	900	2.07
1980	401	900	8.94
1981	401	900	-
1982	433	250	-
1983	433	250	-

Average annual increase = 5.98%

SOURCE: Table 10

Table 12

Estimate of the financial assistance of the Clinical Hospital and the Faculty of Medicine of the University of the Republic of Uruguay to CLAP, 1980

Concept	US$/month
Physical facilities 4,100 m^2	10,000
Electric light	3,000
Gas	600
4 cleaners	1,000
In-house telephones	200
Repairs	500
Maintenance facilities	400
Piped water	150
Supply of expendable material	120
Wages and salaries of Faculty personnel	900
Wages and salaries of UPI personnel	4,373
Rental of IMB computer	600
5% of salaries of physicians, residents, nursing auxiliaries, administrative personnel and material for Obstetrical and Neonatal Clinic operating on 16th floor, which supplies clinical material for training, research and development of appropriate technology by CLAP	15,000
	36,843/month*

One time expenditure:

Remodeling of facilities for computer	16th floor	15,000 (1979)
	basement	10,000 (1980)

* Or US$442,116 per annum

SOURCE: Data obtained from the Clinical Hospital of Montevideo, Uruguay.

Table 13

Analysis of the annual distribution of the budget, by item, 1976-1980

Year	Wages/salaries	Supplies	Travel	Other	Total
1976	248,394 (76.09)	35,000 (10.72)	15,400 (4.72)	27,640 (8.47)	326,434 (100)
1977	251,231 (69.29)	64,006 (17.65)	21,900 (6.04)	25,455 (7.02)	326,592 (100)
1978	324,149 (80.22)	42,726 (10.57)	21,800 (5.40)	15,400 (3.81)	404,075 (100)
1979	343,725 (78.80)	50,136 (11.49)	21,700 (4.98)	20,650 (4.73)	436,211 (100)
1980	483,287 (60.82)	276,737 (34.83)	34,585 (4.35)	- -	794,609 (100)
Total 5-year Period	1,650,786 (71.03)	468,605 (20.16)	115,385 (4.96)	89,145 (3.84)	2,323,921 (100)

Note: The numbers in brackets are the respective percentage figures for each year.

SOURCE: Accounting and administrative documents of CLAP.

Table 14

Trend of the purchasing power of the wages and salaries of CLAP, January 1979-December 1980

1	US$ average income of one group of staff members 2	Consumer price index* 3	Exchange rate for payment of salaries (WHO) 4	US$ theoretic wage to maintain purchasing power** 5	% Real purchasing power 6
January 1979 July	263	1,664.0 to 2,158.1	6.95 to 7.80	239.42 to 276.68	From 100 to 86.5
August 1979 February 1980	300	2,364.9 to 3,122.3	7.90 to 8.45	299.35 to 369.50	From 91.2 to 73.9
March 1980 December	323	3,183.8 to 4,121.1	8.45 to 9.75	376.78 to 422.68	From 77.7 to 69.6

* Base 100 equals prices ruling in March 1973 in Uruguayan pesos.

** Result of dividing column 3 by column 4.

If wages and salaries are to recover their purchasing power at January 1979, an average increase of 45.7 per cent will be necessary.

SOURCE: Accounting and administrative data of CLAP.
Data from National Directorate of Statistics and Census of Uruguay.

ANNEX II

WORK SCHEDULE

1.1 Monday, 18 May

08:30	Introductory interview with Dr. Néstor Suárez Ojeda, Adviser in Maternal and Child Health, and receipt of basic documentation and pertinent material
10:30	Interview with Dr. Sumedha Khanna, Chief, Division of Comprehensive Health Services, PASB
14.00	Interview with Mr. Frank Lostumbo, Division of Administration
15:35	Interview with Dr. S. Paul Ehrlich, Jr., Deputy Director

1.2 Tuesday, 9 May

08:00-12:00	Reading and analysis of documentation received
12:00	Interview with Dr. Gabriel Schmunis, Division of Human Resources and Research
17:00	Interview with Dr. Eusebio del Cid Peralta, Assistant Director

1.3 Wednesday, 20 May

08:00-13:00	Reading and analysis of documentation and pertinent material
15:00-19:00	Design of basic document for CLAP evaluation

1.4 Thursday, 21 May

08:00-13:30	Preparation of basic document
14:00-19:00	Design of forms for collecting and recording information necessary for the evaluation

1.5 Friday, 22 May

08:00-12:00	Design of forms
12:00	Interview with Dr. Néstor Suárez Ojeda to inform him of the action plan
12:30	Interview with Dr. Sumedha Khanna for the same purpose
14:30-18:00	Final arrangement of documents

1.6 Saturday, 23 May
Sunday, 24 May

Journey to Montevideo, Uruguay

Preliminary interview with Drs. Roberto Caldeyro-Barcia, Ricardo Schwarz and Angel Gonzalo Díaz, CLAP staff members

1.7 Monday, 25 May

08:30-13:30 Interview and work with Dr. Roberto Caldeyro-Barcia, Director of CLAP

15:00-19:30 Work with Drs. Ricardo Schwarz, Rubén Belitzky and Angel Gonzalo Díaz

1.8 Tuesday, 26 May

08:30 Interview with the above-mentioned PASB staff members in CLAP

15:00 Distribution of survey sheets to local CLAP employees. Two sheets were distributed, one to medical personnel and the other to non-medical personnel

1.9 Wednesday, 27 May

08:30-12:00 Work with CLAP documentation

13:30 Trip to the Department of Cerro Largo to the cities of Melo and Río Branco, together with the following personnel:

- Dr. Raul Bustos, Neonatology
- Dr. Gustavo Guissi, Biochemist and Coordinator of the Cerro Largo Program
- Alba Izquierdo, midwife
- Nelly Farfán, nurse, PASB staff member
- Dr. R. Silvera, Electronics Technician (In Rio Branco we were joined by Dr. Alvaro Osorio, pediatrician, and Dr. Carlos Serrano, PASB staff member)

20:30-23:30 Meeting with the Parents Group of Melo in the meeting room of the townhall

1.10 Thursday, 28 May

07:00-10:00	Visit to Melo Health Center and discussion of its health activities with local officials
10:00-13:00	Visit to Melo Hospital (Natural Delivery and Maternal and Child Primary Care Program)
17:00-19:30	Meeting with physicians in Melo
20:30	Journey to Río Branco

1.12 Saturday, 30 May

09:00-13:30	Work with CLAP documentation

1.13 Monday, 1 June

08:30-13:30	Work with PASB staff members in CLAP
14:30-19:00	Work with documentation provided by CLAP staff members

1.14 Tuesday, 2 June

08:30-11:30	Joint work with CLAP staff members
12:00	Interview with Dr. Enrique Boix, Director, Clinical Hospital, Montevideo
14:30-20:00	Analysis of documents

ANNEX III

LIST OF POSSIBLE MEMBERS OF THE SCIENTIFIC COMMITTEE OF CLAP
SENT ON 19 JULY 1976 (MEMO CLAP-202-76)

(Explained in numbered paragraph 10)

ARGENTINA

Profesor Jacobo Halac
Maternidad Provincial
Córdoba, Argentina

Profesor Eugenio Koremblit
Maternidad Sardá
Buenos Aires, Argentina

Profesor Roberto Votta
Cátedra de Obstetricia
Facultad de Medicina
Buenos Aires, Argentina

BRAZIL

Profesor Domingos Machado
Director, Instituto de Perinatologia da Bahia (IPERBAF)
Faculdad de Medicina
Universidad Catolica
Largo da Graca 9
Salvador, Bahia, Brazil

Profesor Bussamara Neme
Hospital de Clínicas
Faculdad de Medicina
Sao Paulo, Brazil

Profesor Pedro Luiz Costa
Maternidad Mario Totta
Porto Alegre, Río Grande do Sul, Brazil

Profesor Antonio Marcio Lisboa
SQS 208 Bloco A, Apto. 201
Brasilia, Brazil

Profesor Luiz Torres Barbosa
Hospital Servidores do Estado
Río de Janeiro, Brazil

CANADA

Profesor Sidney Effer,
Division of Perinatology
Department of Obstetrics and Gynecology
McMaster University Medical Center
Hamilton, Ontario

Profesor Jacques F. Roux
Director Department of Obstetrics and Gynecology
University of Montreal (Hospital Sainte-Justine)
3175 Chemin, Sainte-Catherine
Montreal, Quebec H37 1C5

COSTA RICA

Dr. Carlos Prada
Hospital México
San José, Costa Rica

CHILE

Profesor Carlos Gómez Rogers
Hospital Universitario J.J. Aguirre
Santiago, Chile
(Domicilio: Isidora Goyenechea 3341, Santiago, Chile)

Dr. Enrique Guiloff
Hospital Universitario J.J. Aguirre
Santiago, Chile

UNITED STATES OF AMERICA

Professor Louis Gluck
Department of Pediatrics
Division of Perinatal Medicine
University of California, San Diego
La Jolla, California 92093

Professor Edward H. Hon
Department of Obstetrics and Gynecology
University of Southern California
(Women's Hospital) LAC-USC Medical Center
1240 Mission Road/54-40
Los Angeles, California 90033

HONDURAS

Profesor Doctor Alfredo Zambrana
Hospital Materno-Infantil
Tegucigalpa, Honduras

MEXICO

Dr. Eduardo Jurado García
Director, Instituto Mexicano de Perinatología (DIF)
México, D.F. México
(Domicilio: Prolongación Emiliano Zapata 24, México 13, D.F.)

Dr. Luis Castelazo Ayala
Avenida de Los Andes 320
México 16, D.F. Mexico

PERU

Dr. René Cervantes
Director, Instituto de Perinatología y Protección
Materno-Infantil (INPROMI)
Manuel del Pino 279
Lima, Peru

Dr. Abraham Ludmir
General J.A. Pezet 1543
Lima, Peru

VENEZUELA

Dr. Oscar Agüero
Maternidad Concepción Palacios
Caracas, Venezuela

Dr. Miguel Yaber
Instituto de Perinatología
Hospital Universitario
Caracas, Venezuela