



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



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Topic 10: ECONOMIC ASPECTS OF HEALTH ACTIVITIES

Resolution XXIII of the 12th Meeting of the Directing Council
(Havana 1960) stated:

"The Directing Council,

Taking into account the significance of the economic aspects
of public health activities, recognized during the examination of
the various topics of its XII Meeting;

Considering that a more active participation by the Governing
Bodies of the Pan American Health Organization with other international
organizations would facilitate the integrated development of the
activities with which this Organization is charged; and

Having taken note of the legal provisions established in
the Basic Documents of the Organization;

RESOLVES:

1. To commend the valuable efforts carried out by the
Director of the Pan American Sanitary Bureau to emphasize the
economic aspects of public health activities.
2. To request the Director of the Pan American Sanitary
Bureau, in accordance with the terms of Article 23 of the Constitution
of the Pan American Health Organization, to consult with the
appropriate officers of the Organization of American States and
other organizations interested in or connected with public health,
in order to study how the joint interests of these organizations in
the economic field can be further developed.

3. To request the Director to report on this matter to the 43rd Meeting of the Executive Committee, so that the Committee, after considering the report, may transmit it with such observations and recommendations as it deems pertinent, to the XIII Meeting of the Directing Council to be held in 1961."

As a further expression of concern with the economic implications of health and disease the Directing Council took specific note of the "unfavorable effect on the countries economies of the prevalence of malaria" and in Resolution XVI-(2) requested "... the Pan American Sanitary Bureau to study, insofar as budgetary limitations permit, the possibility of devising methods for the evaluation, by the Member Governments, of the economic and social significance implicit in the speedy elimination of malaria."

During the past two years the Organization has been very much aware of the importance of linking public health to the economic development of nations, and in this connection it has taken an active role in the deliberations of the CAS and its committees.

The Second Meeting of the OAS Council's Special Committee to Study the Formulation of New Measures for Economic Cooperation (commonly called the Committee of 21), recommended in Resolution VII that health programs, being both essential in themselves and complementary to economic programs, should be included in planning and negotiating the financing of economic development, and that recourse should be made to the Pan American Sanitary Bureau for technical assistance in formulating these programs. This Resolution was subsequently approved by the Council of the Organization of American States at its Extraordinary Session of 8 July 1959.

At the Third Meeting of the Committee of 21, a statement on the relation of health to economic development was presented by the Director of the Pan American Sanitary Bureau. (See annex)

Out of this Third Meeting came the Act of Bogota, which includes a section on health, in the introduction and drafting of which the PASB participated. The Section D of Chapter I reads as follows:

D. Measures for the improvement of public health

1. The reexamination of programs and policies of public health, giving particular attention to:
 - a. strengthening the expansion of national and local health services, especially those directed to the reduction of infant mortality;

- b. the progressive development of health insurance systems, including those providing for maternity, accident and disability insurance, in urban and rural areas;
- c. the provision of hospital and health service in areas located away from main centers of population;
- d. the extension of public medical services to areas of exceptional need;
- e. the strengthening of campaigns for the control or elimination of communicable diseases with special attention to the eradication of malaria;
- f. the provision of water supply facilities for purposes of health and economic development;
- g. the training of public health officials and technicians;
- h. the strengthening of programs of nutrition for low-income groups.

In addition, incidentally, the interest of the PASB in environmental sanitation is reflected in the references to housing, water supply, and sanitation, and to their financing, in Section B of Chapter I of the Act of Bogotá.

The Director circulated the Act of Bogotá to the Zone Representatives of the Pan American Sanitary Bureau immediately after its adoption. His covering memo suggested that the Bureau could assist governments in the preparation of sound projects with health implications that might be submitted to the Inter-American Development Bank (IADB) or to any other source of funds for social and economic development. It also emphasized the need for the simultaneous development of economic productive capacity and social welfare measures and called attention to the vital role PASB could play not only in public health projects but also in certain aspects of programs relating to agrarian reform, improved housing and community services, education and training. It also pointed out that when loans for health work are being considered, the economic situation of the countries concerned is quite as important as the purely technical character of the health programs.

The Director subsequently emphasized the interrelationship of health and economics in a message to the VII Inter-American Congress of Sanitary Engineering (AIDIS) in Montevideo, Uruguay, in October 1960. In a speech to the First Mexican Public Health Congress in December of that year, and in the formulation of plans for the Technical Discussions at the XIII Meeting of the Directing Council in 1961 and the Second Pan-American Health Congress in 1962, the theme was further developed.

The working relationships between PAHO and the Inter-American Development Bank are developing rapidly to the point where mechanisms for close cooperation are being worked out. Essentially, PASB will serve as the technical advisory agency to the Bank in the review of projects with health and sanitation implications. The field of water supply, to which IADB will devote considerable attention, represents an area where the PASB contribution bears an intimate relationship to economic development as well as to public health. The first loan made by the Bank was a credit of \$3,900,000 to the Municipality of Arequipa, Peru, for the extension and improvement of its water supply and sewage disposal systems. The PASB assisted the Government of Peru and the Municipality of Arequipa by reviewing technical plans and proposals for financing, and by providing technical aid in computing the water rate structure and in preparing the report for presentation to the Bank.

Applications for water loans to the IADB have recently been made or are in preparation by three Municipalities in Venezuela and five in Colombia. Appropriate assistance has been given by PASB staff at several levels.

Technical advice was given to the Governments of Costa Rica, El Salvador, Honduras, and Nicaragua in 1960 on the planning of national water supply programs. Assistance is currently being provided to Colombia, Cuba, Haiti, Peru, and Venezuela, and a number of Municipalities in Mexico are to receive assistance in water planning before the end of 1961. In Port-au-Prince, Haiti, three PASB engineering consultants are currently engaged in assistance on the design and organization of water supply systems, which has resulted in considerable reduction in their cost.

In addition to its work with the Inter-American Development Bank in connection with water loans, PASB is exploring with the Bank the possibility of obtaining credits to assist countries in the eradication of malaria. The Bureau has made preliminary contacts with the International Bank for Reconstruction and Development (World Bank), the International Development Association, and the United States Export-Import Bank in order to ascertain the interest of these organizations in extending long-term credits to countries members of the Pan American Health Organization for investment in health facilities in general and in specific health projects and programs.

Implementation of the Act of Bogotá with respect to health will require sound planning as a basis for action. The health plans must of necessity be an integral part of total national social and economic development plans. The Bureau is building upon the basis of a large fund of experience in development and promotion of national health plans and planning, such as was indicated in the Technical Discussions at the IX Meeting of the Directing Council in September 1956.

The staff of the Bureau is working with governments in planning for programs to improve health; such planning is carried out within the context of both national and local goals and resources. Finally, measures are now under way to prepare guides on planning for local and national health personnel which will assist in sound planning for health in association with planning for total social and economic development.

The Director and staff have had numerous conferences with senior officials of the OAS to carry even further the close collaboration of the two Organizations in the broad field of social and economic development.

At present, two fields of deep mutual interest, hygiene of housing and medical care programs under social security systems, are the subject of joint staff exploration. It is expected that out of this exchange of views will grow several cooperative efforts both in the carrying out of a study of medical care and in setting up a method whereby the health-oriented staff of PASB may contribute so as to ensure that in the planning for low-cost housing health as well as shelter are taken into account.

Other collaborative efforts are still in the discussion stage, but both Organizations are deeply committed to the principle of joint activities designed to emphasize the social and economic aspects of health programs.

In the presentation "On Health and Wealth" in Americas the following statement was made by the Director:

"As I said earlier, I feel that the OAS program includes the doctrine of health as a basic component of the economy. The Pan American Sanitary Bureau is putting it into practice by cooperating with the Member Governments in improving and extending national and local health services; by training personnel, both professional and auxiliary; by controlling or eradicating -- depending on how far science can go at this point -- the most prevalent communicable diseases; and by investigating new ways of improving and protecting the people's health. From experience we know that Hemisphere-wide programs cost more than most of our countries can spend. Suffice it to mention malaria eradication, water supply, sewage disposal, nutrition, industrial hygiene and safety, and building and equipping needed facilities. These few examples justify the capital outlays that, in my opinion, should be considered within the scope of the international banks and their special operations."

While it is almost impossible at this point to relate the cost of public health programs to the economic impact of ignoring or eradicating a disease, there are some clear-cut humanitarian reasons for expending public funds for health. The economic necessities for such action have been accepted, to a greater extent for some diseases than for others. But as a first step on the part of the Bureau in helping to develop such economic bases, specific action has been taken.

The Organization encouraged the Bureau of Public Health Economics of the University of Michigan to apply for a research grant from the USPHS National Institutes of Health to measure the economic implications of malaria eradication and agreed to supplement the grant with a sum equal to 10 per cent of its amount in order to promote research on the subject. When \$95,000 for a three-year study of the economic impact of malaria eradication was made available, the Bureau furnished an additional \$9,500 required for full implementation of the project. The Director of the Bureau of Public Health Economics of the University of Michigan is Principal Investigator, an economist and a malaria specialist are being recruited, and a progress report will be made as soon as possible.

It is considered that the above indicates both the concern of the Bureau with the economic aspects of health and the intent of the Bureau to continue to work, and at an even faster pace, with the OAS, with other international agencies, with national agencies and governments, and with other available resources of capital or professional and technical assistance in such a way as to do the following:

1. Fulfill the role of PAHO in the implementation of the Act of Bogotá.
2. Contribute even more effectively, through health activities, to the social and economic development of the countries of the Americas.
3. Assist in the establishment of more effective bases for assessment of the economic aspects of health programs.
4. Assist in the development of techniques for long-range national planning in health in such a way as to permit the integration of the concept of health into planning for total national development.

HEALTH PROGRAMMES AS PART OF ECONOMIC DEVELOPMENT
IN THE AMERICAS

by

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The Pan American Health Organization's doctrine is, basically, that all its activities should be an integral part of economic progress in the countries of America, this progress being understood as the whole of the measures which contribute to the well-being of man, the human family and society in general. Whatever the methods or indices used to assess the degree of development in each country, there is in that development a humanist element, seeing that it makes man its object and aim. For this reason, individual and collective health are a part of economic development: they both depend upon and affect it. There can be no adequate production of goods, capital or consumer markets, or proper services without sufficient and effective human effort. Conversely, a healthy human being depends upon economic development since it provides him with opportunities to create, produce and consume - in short, it gives a real and tangible meaning to his existence.

The great health problems of the Americas today extend beyond the frontiers of medicine and the paramedical branches, beyond prevention and the related techniques based on very advanced knowledge. Countries have emerged from the era of the pestilential diseases which formerly decimated their peoples, and although communicable diseases still continue to weigh heavily upon morbidity and mortality, most of them can today be eliminated if governments will make the necessary effort. In other words, we know what has to be done and how to do it.

It is sufficient to mention the principal health problems affecting most countries to discover that they have a social origin, that is to say, they are closely related to economic conditions. Sanitation (particularly the provision of water and elimination of waste-matter), the care of the sick, nutrition, infant mortality, health education, malaria, are the main problems in this continent. In all of them there is an underlying biological determining factor which, however, cannot be invoked as the only cause, for many factors in social environment play a role and they must all be taken into account for the complete solution of each one of the problems mentioned.

* Submitted to the Third Meeting of the Special Committee of the Organization of American States to study the Formulation of New Measures for Economic Co-operation, September 5-16 1960, Bogotá, Colombia.

For example, sooner or later all the factors in economic development have an effect on infant mortality. In eight American countries (among others) it has been statistically proved that mortality in infants under one year and in children in the 1-4 years age-group occurs in inverse ratio to four representative variants in economic development. These variants are: average per capita income; consumption of animal proteins; drinking water installations; literacy of parents. Analysis of the figures shows that the higher these indices are in a country, the lower are the mortality rates in the groups mentioned. As a rule, the levels with respect to all these factors in a given country are significantly parallel and comparable; this shows their strict interdependence and demonstrates the need to approach them systematically and with understanding.

In one of the countries concerned the analysis was made in a period of serious inflation which placed heavy restrictions on expenditure on health promotion and protection. Nevertheless, the infant mortality rate decreased slightly and this should be interpreted as a sign that the health organizations used their available resources to the best effect. It is logical to suppose that without the serious social consequences accompanying inflation, the mortality rate would have fallen much lower.

The same remarks concerning socio-economic factors may be said to apply to most of the continent's health problems.

There is therefore every justification for the present policy of the Pan American Health Organization, in its capacity as adviser to Governments of the American continent, aiming as it does at the incorporation of its specific functions in all undertakings for the greater well-being of the people through economic progress. At its Second Meeting in April last year in Buenos Aires, this Committee, in adopting the ideas put forward concerning the permanent and reciprocal relationship between health, economic development, living levels and social well-being, resolved to recommend to governments that, "in programming and negotiating the financing of economic development, they include public health programmes inasmuch as they are essential to, and supplement, economic programmes", and that they seek "technical advice from the Pan American Sanitary Bureau for the formulation of the above-mentioned programmes".

In accordance with this policy we have been taking special note of economic development in the Americas and we have observed, with some concern, that it is slow and irregular and is definitely not keeping pace with the progressive increase in the population. On the other hand, we have noted with satisfaction that countries are becoming increasingly aware of the need for continent-wide action.

There is today a much clearer idea in all countries of ways and means of capitalization through savings; of the complementary role of external credit; of the importance of international trade which stimulates and produces variation in production and increases consumption; of the undesirability of remaining isolated from the rest of the continent; of the proven value of technical assistance, particularly when it consists of the application of methods which have been tried out in a similar cultural framework.

People are becoming more and more convinced that it is absolutely necessary to determine the extent of the problems and the order of their importance, and to assess the quality and quantity of available resources including technical personnel, auxiliary workers and accumulated experience. In brief, the idea of short- and long-term planning is being adopted in America as the indispensable corner-stone of any process of development.

Other expressions of the desire, inspired by Governments, to seek by some common effort the road which will lead to greater well-being and enable the peoples to live together in better understanding include President Kubitschek's Pan American Operation; the increasingly thorough examination of methods of organizing the common market; the regional trade agreements; the creation of the Inter-American Development Bank; the assembly and distribution by CEPAL of valuable information on economic tendencies within each country and within the continent, and the technical advice which this organization provides; the remarkable work of this Committee which is encouragingly reflected in the formulation of new methods of economic co-operation.

However, human reactions to the possibilities of well-being are very different. Such well-being is considered as a right which it is the duty of the State to accord, and this claim becomes more insistent as the individual's contribution to development and social progress increases: he sees that it exists elsewhere and demands it for his own community. People have learned to appreciate the advantages of the right of association and this sometimes makes them impatient. It is the duty of governments, of enlightened opinion from which they must constantly take their inspiration, to recognize and, through education, to orientate these collective impulses so that they may be translated into concrete realizations, with justice for all. As we have already stated, in our view economic progress has, or should have, a humanist basis and aim.

The principle according to which health is a component part of development is today fully supported by all Member Governments of the Pan American Health Organization. This is proved by the debates on the various subjects dealt with at the XII Meeting of the Directing Council in August last, which adopted resolutions on: the economic

aspects of health activities; the influence of malaria eradication on economic development; water as a vital element for community, agricultural and industrial development - to mention only the most outstanding items.

For the technical discussions which are to take place during the XIII Meeting of the Directing Council, the subject chosen was "Methods of evaluating the contribution made by health programmes to economic development"; this reveals not only a conviction but a definite desire to translate into action the Organization's present fundamental policy. Interpreting this desire, we have been attempting to relate the principles and methods of this policy to the different health problems and programmes, thereby creating a current of opinion which is leading to acceptance of these ideas in various circles.

Another proof, perhaps the most marked, of the effect of the spread of these ideas is our presence in this honourable Committee where we are able to make the voice of the Pan American Health Organization heard.

We propose to take this opportunity, in accordance with the above-mentioned resolution of the Second Meeting, to draw attention to some health problems of high priority in Latin America whose solution is an important factor in development and will undoubtedly contribute to economic progress.

In the first instance, we would mention basic sanitation and in particular, water supplies. The importance of this element in the life of the people, in industry, in the promotion of agriculture and in general prosperity seems obvious. We had occasion to examine this point during the Second Meeting and to explain the policy agreed between the World Health Organization and the Pan American Health Organization.

The magnitude of the problem is evident: 22 million 700 thousand (22,700,000) persons living in urban communities with more than two thousand inhabitants have no water. The same applies to 86 million (86,000,000) people in rural areas. Altogether, it may be estimated that about 109 million (109,000,000) persons in Latin America are without this vital element. The consequences of this situation become obvious when we consider that the principal industries are in the capital cities and most populated towns. Since 1950, water supply services have been extended to 21 million (21,000,000) people in Latin America but, during the same period, the population has increased by 30 million (30,000,000). If the present tendency continues, by 1980 there will be more than 150 million (150,000,000) persons without water - with the consequent delay in economic development.

Clearly, different methods will have to be adopted for the solution of this problem in urban and in rural areas. In both environments, the enlightened co-operation of the communities and of the State will be

necessary, but the social and financial implications will differ. This difference is related essentially to the different sociological outlook of urban and rural populations as reflected in their different attitude to their needs.

Experience in our continent has shown that in rural areas it is essential to organize communities before there is any indiscriminate and hasty installation of water supplies. The people's confidence must be gained through education and some constructive action of which they can see the results. It is necessary to promote in the community leaders a sense of responsibility for the common good, so that they may serve as examples to others. Only in this way can programmes which aim at successive and enduring improvement of conditions be successful.

In urban environment the situation is different: there is no need to persuade people of the need because they are already aware of the consequences of the lack of water supplies. However, although they may ask for the service insistently, they do not always offer to contribute in an adequate manner to its installation and upkeep. Industrial development also adds to the demand, not to mention the active political pressure.

Owing to these different characteristics, the services have to be organized and financed in different ways. In view of the population density in urban centres, the benefits enjoyed by the inhabitants, and the effect on economic development, water supply systems in towns should be entirely self-supporting. This means that they must be organized in a rational manner with an efficient administration, and a tariff of charges for users based on consumption, the real cost of the services and, in the case of industries, on the type of undertaking.

Examination of the present situation in the Americas makes it possible to establish a figure of \$50 per person for towns with 10,000 inhabitants and more, and of \$30 for towns with 2,000 - 10,000 inhabitants. If it is remembered that the population in towns of the sizes mentioned above numbers about 22 million 700 thousand (22,700,000), the provision of water under a 20-year programme would mean an annual expenditure of 48 million (48,000,000) dollars.

The calculation with regard to rural installations should be made over a longer period in view of the absolute necessity to organize and educate the communities. With a population of 86 million (86,000,000) and an average cost of 10 dollars per person, the annual expenditure would be 21.5 million (21,500,000) dollars over a 40-year period.

It is obvious that, in the present conditions of organization and administration of water supply services, the figures mentioned above would be far beyond the financial possibilities of most countries. This means that there must be careful planning within each country on the basis of resources, and consideration of the possibility of obtaining supplementary loans on the money-market on a long-term basis at low interest.

It has been suggested that the rural problem could be solved gradually in the various countries with national capital, but in so far as the urban situation is concerned, it would seem necessary in most cases to supplement local funds with external credits.

The systems of financing must vary according to the possibilities of the respective countries. However, it is possible to envisage, as a general principle, the creation of a revolving fund from mixed sources, national and international, which could be maintained after a certain lapse of time by the service charges. Any plan of this kind would have to be based on the following fundamental prerequisites: efficient organization and administration of the services to ensure their maintenance and gradual extension; a self-financing system based on the indispensable capital, and tariffs that would make it possible to amortize the credits and pay interest while at the same time stabilizing the system. In this connexion, there will have to be a radical change in the attitude of Governments and communities. The former will have to include in the tasks of State administration the important social problem of water, and methods of solving it within an integrated overall programme. They must also be persuaded to obtain the essential capital on the international money-market, until this becomes a customary procedure.

On the other hand, communities must be made to understand that the supply of water to homes or industries is an expensive undertaking and that in view of the importance of this element the State cannot be expected to provide it free of charge. This attitude is what has led to the present situation in which inhabitants either do not contribute at all or contribute less than the real cost so that governments have not sufficient funds. And in the meantime the population without water increases daily. The adoption of an adequate system of tariffs which will make the organs which are responsible for solving the problem self-supporting would seem to be the most reasonable solution. This would also serve as an example on which to base the regularization of the tax system in general in Latin America; at present it bears no relation to the income of the inhabitants. It would also accustom people to the idea that they cannot expect the State to provide them with everything.

In successive resolutions, the Pan American Health Organization has given priority to basic sanitation, with special emphasis on the provision of water. Accordingly, the Pan American Sanitary Bureau is providing Governments with advice on the technical, administrative, budgetary and juridical aspects of the problem of water supplies. The Organization is fulfilling this task through the provision of short- or long-term consultants, the training of national technicians, and the facilitation of exchange of information on the continent's common problems at seminars or conferences. It is gratifying to note the interest shown by Governments, and their intention to improve community

water supplies insofar as their financial means permit. Pursuant to Resolution No. 7 of the Second Meeting, the Pan American Sanitary Bureau is continuing in this way to fulfill its functions as technical advisor.

We are confident that in formulating new measures for the economic development of the Americas this Committee will accord to the provision of water supplies the priority it deserves and give some consideration to the suggestions we have taken the liberty of putting forward for the solution of this problem.

There is in the continent a noticeable intention to improve rural living conditions and land exploitation, and we wonder if some thought has been given to the effects of malaria as one of the adverse factors diminishing energy and interfering most with the successful exploitation of natural riches.

The malaria area in the Americas covers approximately 13 million (13,000,000) square kilometres inhabited by 85 million (85,000,000) people who are exposed to the risk of the disease. It should be remembered that this is one of the most debilitating diseases; it enormously decreases work capacity, creative capacity and initiative.

A vast campaign for the eradication of malaria is being conducted with the collaboration of all the Governments of the World. Seldom in the history of mankind has there been such a concentration of will and talent upon an elimination of an enemy of the human race. This international co-operative action is justified by the world-wide presence of malaria; it is a typical example of a disease which does not respect frontiers and which cannot be eliminated piecemeal. The concept of control, which in most cases leads only to a phase of latency, has been replaced by that of eradication.

The programme is being developed in differing degrees in all the countries of America in which malaria is present. Governments are aware of the significance of this enormous undertaking and deserve praise for the substantial and sustained efforts they have made. The International Co-operation Administration of the United States, the United Nations Children's Fund, the World Health Organization and the Pan American Health Organization are all collaborating, on the instructions of their directive organs. The methods by which malaria is to be eradicated are clearly defined and have been improved on the basis of the experience acquired from the intensive work of the last four years during which progress has been sustained and encouraging. This is shown by the marked drop in the number of patients in the large urban centres of the Americas, and the arrival of new communities in regions which were previously malarious. Eradication has, in fact, been achieved over extensive areas in several countries.

It is equally important to know what still remains to be done, what new problems have appeared in the form of what might be called a counter-attack by nature. We refer to the phenomena of resistance on the part of the mosquito vectors to residual insecticides in some foci, to extra-domiciliary transmission and to the probably repellent action of the insecticides. On the human side there is ignorance of the consequences of the disease, attachment to certain customs and traditions which interfere with the methods used, and human weaknesses revealed by deficient administration and the sometimes equivocal manoeuvres of party politics. Another important factor is the need for epidemiological and ecological investigations wherever transmission of the disease has not been interrupted after correct application of the appropriate measures. In spite of all these factors, the progress made is on the whole encouraging and enables us to view with optimism the effort of the Americas to eradicate malaria.

The cost of the continent-wide programme is estimated at 170 million (170,000,000) dollars from 1960 up to eradication. The Governments hope to make budgetary allocations of 106 million (106,000,000) dollars. For equipment and supplies not produced in the countries, UNICEF and ICA propose to provide 8 million 644 thousand (8,644,000) and 19 million 730 thousand (19,730,000) dollars respectively. The Pan American Health Organization will need 7 million 500 thousand (7,500,000) dollars for technical advice and co-ordination of the continent-wide campaign.

On the basis of our present information, the above figures represent what is at present available to Governments and other participating bodies - which means that 28 million (28,000,000) dollars are still required to finance the total eradication of malaria. We would emphasize the economic effort which has to be made by Governments, and the international organizations they have created, in order to raise the total funds for eradication; this makes it desirable to include the campaign as an integral part of all the measures to improve economic conditions in the Americas. The possibility of obtaining credits would provide Governments with the incentive to implement all the phases of the campaign. The rehabilitation and colonization of extensive areas are a solid guarantee of these credits. Human energy, socially reintegrated, so that it can produce and consume, is of inestimable value.

Economic developments calls - in our modest view - for knowledge, experience, organization and administration. These elements become as important as the necessary capital, whatever its origin, and no measures can be successfully applied without the essential qualified technicians and auxiliary workers who can interpret the Governments' proposals and use their experience to shape the elements in question. The training and continuation-training of all those who are participating in the various programmes is one of the indispensable factors and in our continent an essential prerequisite for success. This is equally true in

the field of health. A study recently made by the Pan American Sanitary Bureau showed that the situation in regard to technicians is serious, both quantitatively and qualitatively. Physicians, engineers, odontologists, veterinary surgeons, nurses, midwives, nutritionists and dietitians are not sufficiently trained to assume the responsibilities which society lays upon them. The education imparted is not based upon the concept of health as an integral part of social well-being. Too much emphasis is laid upon aspects which lead to professional deformation and this is aggravated by a "production" shortage which makes it impossible to meet the pressing needs of a population which is increasing in an extraordinary manner and for which also it is impossible to find sufficient work.

There is sufficient information: there has been wide and repeated discussion of the policy to be adopted; there is a continent-wide awareness of the problem and of the urgent need to solve it; the steps which are being taken in some countries show that adequate solutions can be found. The only things lacking are Government resources and the technical advisers who will make it possible gradually to train health technicians who, in addition to fulfilling their specific tasks, will be able to contribute to general social progress and well-being. This is another aspect which deserves to be taken into account in the American development programme.

We have indicated the permanent relationship between health and well-being; unless there is harmonious development in each community the results will not be enduring. It follows therefore that housing programmes, agricultural programmes to improve land exploitation, programmes of colonization, education at all levels, industrial development, community organization must all include health activities as substantial and complementary elements.

The principles enunciated by us in the name of the Pan American Health Organization are reflected in the programmes already referred to for the solution of recognized prevailing problems in the Americas. The Organization has the necessary continental structure to enable it to collaborate with Governments, in so far as funds are available, in the planning and development of these activities which are an important part of the economic development of the countries.

It is interesting and profitable to meditate upon the historical development of the sciences which are directed towards man as their principal object. The whole conception is humanist - and "conception" means the mental activity which creates ideas: ideas which cannot have any objective reality, being artificially postulated on the basis of a mental process. In this form, the "conception" represents the idea of an uncertain, non-existent object whose realization is nevertheless desired. There is no doubt that human sciences have progressed from

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the abstract to the concept, to doctrinal definition and to partial realization. The social physics of Quetelet, the sociology of Comte, the ecology of Haeckel, the mesology of Bartillon, the social medicine of Sand, are all landmarks on the way to a Scientific anthropocentrism which becomes inoperative if man is lost sight of. Only he has the ability to go beyond himself and to transcend his own physical limits.

It is useless to have close collaboration and accord between the economic and health sciences unless ultimately we can arrive at the ethical affirmation of the personality, of social justice, of the dignity of an existence which will permit men to live and realize themselves fully. As the philosopher has said: "When to the miracle of the brain is added the miracle of the heart ..."