

HEALTH AGENDA FOR THE AMERICAS

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

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Scientific Publication No. 216

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION
525 Twenty-Third Street, N. W.
Washington, D.C., 20037, E.U.A.

1970

*Reprint from the introduction of the
Quadrennial Report (1966-1969) of the
Director of the Pan American Sanitary
Bureau, Regional Office of the World
Health Organization (Official Document
101, 1970).*

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The political decisions directly affecting the health of the inhabitants of the Americas during the four-year period 1966-1969 are part of a sequence of historical events which have taken place during the decade 1960-1969. The Declaration of the Presidents of America in April 1967 reaffirmed and widened in scope the pronouncements and objectives of the Charter of Punta del Este. The first Special Meeting of Ministers of Health of the Americas, in April 1963, which gave a frame of reference and a functional content to the Charter, was followed by a second, held in Buenos Aires in October 1968, at which the statements of the Chiefs of State were translated into practical measures.

What has been achieved during the four-year period 1966-1969 in regard to health cannot be dissociated from these outstanding events of the decade. The profound changes which have taken place during this period in ideas, behavior and customs, and in the aspirations of both men and Governments, have been particularly marked in the health field.

The most noteworthy change—which has given rise to a whole body of doctrine—is the acceptance of the notion of **health as a component of economic and social development**. The strength of the conviction held in regard to the relationship involved here still has to be demonstrated further. However much it ought to be so, the fact is that moral arguments are not sufficient, even though they do point to the obligation on any society to prevent and cure the ills of its inhabitants. Concrete cases show that it is possible to demonstrate the vital importance of a healthy population for the growth of the economy and the improvement of well-being. It is essential to investigate such cases in increasing numbers, to the point where we can formulate a theory of the interdependence of

health and development. This is another way of saying that the complex process of health protection, promotion, and restoration does not depend exclusively on medical technology; this is of course essential, but it must be supplemented by all the factors which make for individual and collective well-being.

This way of thinking has had a series of consequences of the utmost importance, which have been taking place throughout the decade of the 1960's. We see them in the various methods of adjusting needs to available resources; in the structuring and administration of health services; in the development of manpower resources; and the investigation of problems, with emphasis on the relatively more frequent ones. In other words, the doctrine referred to has been followed by policies, principles, norms, and procedures designed to give it form and put it into practice. Thus an image has taken shape of the purposes that guide the Governments of the Americas in regard to health, and a series of concrete measures have been taken to achieve them; all this with due regard to the way of life, the customs, and the traditions which give societies their distinctive characteristics that differentiate them from others in their reaction to a given situation.

The decade under discussion, and particularly the last four years of the decade, witnessed the acceptance and crystallization of the idea of **planning** as a system of investment in accordance with priorities. Thus we find the allocation of funds reflected in the methods adopted for the formulation of health plans. The basis of allocation may be the amount of damage caused, for example, the level of the mortality figures; or the choice may be between various techniques; between services and instruments, including education, research, and capital investment; between levels of health as expressed in life expectancy at birth or other indicators; or again between sectors, e.g., public versus private. The delimitation of spheres of action is after all the essence of political decision, without which planning is devoid of purpose. Without continuity here, the process is lacking which leads from formulation to imple-

mentation, evaluation, and periodic readjustment of the objectives of individual programs and projects. Planning helps to rationalize the series of decisions leading to stages worked out in advance, since there is a constant reinfusion of the experience acquired through successive activities as each is carried out.

During the previous decade, positive achievements took place in the Hemisphere in the identification of priority problems (the diagnosis phase); in the formulation of national plans or specific programs and the implementation of both; and in the training of planners. No less important was the recognition of the limiting factors, the real obstacles to the process, and the urgency of coping with them. But all in all, we must agree that all this took place at the subsectoral level, as regards both the institutions involved and the functions included. In other words, not all health services administered by Governments today form part of their plans; nor do the many functions carried out at present by the various public and private bodies. If we seek an explanation for this state of affairs, it comes down to a dispersal of efforts, which is the same as saying failure to achieve coordination of resources. Time and time again, statements by the Governing Bodies of the Organization have brought out this point and have recommended concrete measures for correcting it and so improving the output and productivity of services, in other words, increasing the number of beneficiaries and adding to their well-being.

It has been felt indispensable to enlist the participation of the universities, on the grounds that they are wanted as a factor in development. Teaching of the health sciences is basic to the achievement of the goals of each and every plan and program, which throw light on changes projected and enable those actually made to be evaluated. Science and technology constantly introduce new interpretations of vital phenomena and of the health problems of societies, and different ways of coping with them. This alone would justify joint action by Governments and universities in an area so vital for social progress.

The topic for the Technical Discussions at the XIX Meeting of the Directing Council of the Pan American Health Organization, XXI Meeting of the Regional Committee of the World Health Organization, was "Financing of the Health Sector."¹ The discussion of this topic brought out the need for a study in depth of the nature of the situation in each country in the face of the relative shortage of funds, the multiplicity of budget sources not properly coordinated, and the urgent need to increase the productivity of the various services. On the basis of the findings of the study, it will be possible to determine what are the major investments needed by the health sector to extend the coverage and include population groups not enjoying permanent care services so far. External financing was considered to be a supplement—at times indispensable—to domestic resources for specific projects, but not a regular and ordinary source for capital equipment.

This brief sketch of the situation is prompted by the statement made above that health planning as carried out hitherto has been subsectoral in scope. Plans have tended to concentrate on activities designed to attain goals which vary in nature according to the method selected. They do not ordinarily include investment programs, programs for the training of professionals and auxiliaries, for the improvement of the administrative infrastructure, and for research, among others. We should bear in mind that even in the countries with a relatively high per-capita income there is an evident imbalance between what is needed and what is feasible, immediately or over the long term. Statesmen are constantly called upon to decide matters of priority and alternative procedures or solutions.

In the last few years, a series of missions organized by the Inter-American System or the United Nations have studied the trend of the economy of the Latin American countries and the Caribbean area, with special reference to external capital needs. Inclusion of health in these missions has been exceptional. Other social sectors too have been neglected, at a

¹*Scientific Publication PAHO 208, 1970.*

time when we are preaching development for well-being. The urgency of systematic programming of investment has become manifest. In other words, while investments have played a highly important role in speeding up the solution of certain outstanding problems, they have not always been part of national health plans. They have tended rather to reflect the credit policy of certain Governments or lending institutions. If investments are programmed—and there is a well-defined and well-tried technique for this—I feel sure that the inflow of external capital can be increased; and the prospects are even better if this is done through joint action by the international credit and health bodies, working together with the State.

The same procedure should be followed in regard to the other components I have mentioned, namely, the training of manpower, the expansion and modernization of the technical and administrative infrastructure, and research.

The task of consolidating over-all health planning in the Americas and making it viable must be an item of the agenda for the decade beginning in 1970. Great as is its complexity, its prospective effect on individual and collective well-being is even greater.

The action which must be taken to bring about certain improvements in the economy and social progress, as set forth in the political pronouncements of the decade, has triggered off a reaction against the status quo and an emphasis on change as a way of life. This has been reflected in the reorganization of health ministries and institutions, in the revision of current legislation, in the adaptation of structures to the requirements of technology, and in the situation of the universities.

Time and time again during this period, Governments and international bodies, public and private, have recognized that the two essential constants for progress in the health sector are the existence in every country of services having the widest possible coverage, and the training of professionals and auxiliaries to carry out the aims of individual programs and of the plan as a whole. In other words, there has been a con-

sensus to the effect that no health project is feasible unless there is a stable infrastructure.

Linked with the foregoing is the **rural question** and what has been called the **ruralization of the urban environment** in the Americas. This embraces the areas where the inhabitants have little or no access to even minimum health services. There are no precise estimates on this point, but there must be at least 30 million persons in the countries of Central America, South America, and the Caribbean area in that situation. To put it another way, 57 per cent of communities with under 10,000 inhabitants have virtually no medical care, either for prevention or for cure. It may well be that this calls for heavier investment and greater ingenuity than any other problem on the part of those responsible for health in the Americas. Yet it cannot be solved on traditional lines within a period acceptable from the human point of view. Nor is it conceivable that health can be left to the professionals, since these will not be forthcoming in adequate numbers, even by the end of this century, to meet the present needs and future needs as they arise constantly from the population increase. No success has been achieved with systems deriving from other cultures and grafted onto customs and ways of life which in the long run reject them. New formulas must be sought for the solution of each problem as it arises, based on the best information available.

This is another basic agenda item for the 1970's and succeeding decades. It is a matter for Governments and their various institutions in the health field, for universities and all their branches which teach subjects and functions relating to health, and for international bodies set up to promote over-all and sectoral development. If they continue to go their separate ways, the results they achieve will be only partial and limited in scope. If they coordinate among themselves and within themselves, the prospects increase enormously and the consequences reach out into the future. This is corroborated by experience.

The Technical Discussions² at the XVII Meeting of the Directing Council, held in Port-of-Spain, Trinidad and Tobago, referred to this rural problem and to the ways and means of coping with it over a period. Mention was made of various approaches for different ecological situations, designed to increase coverage and at the same time to achieve nation-wide solutions. The movement has continued, but not at the speed that Governments would like to see. Two factors tend to slow down the process: shortage of funds and lack of technical manpower. External capital is indispensable if the entire population is to be provided with minimum services, at any rate in regard to the commonest diseases. It must be pointed out that as far as water supply is concerned, not less than 20 million rural inhabitants now have installations, either community facilities or house connections, and this has happened within the last ten years.

Whatever the system applied, in all the countries the proportion of the national revenue earmarked for health is insufficient for the present population. If even the simplest installations have to be constructed, as is the case in the rural areas, the magnitude of the investment increases enormously. To put into practice what we have proclaimed, namely, that health is a right and not a privilege, we must create the necessary conditions to make it come true. This is the essential humanitarian background of our entire operation. If the present policy of international credit bodies does not give or intend to give priority to investment for rural health services, other machinery will have to be established for this purpose; it is inescapable, because it involves human beings.

In order to convince the decision-making authorities of the need for increasing health budgets, both the spending and duplication or lack of coordination of national resources must

²Final Report of the Technical Discussions: "Methods for Increasing Health Service Coverage in Rural Areas." Published in the English edition of the *Boletín de la Oficina Sanitaria Panamericana—Selections from 1968*.

be reduced to a minimum, with the help of a rational planning process.

It is not surprising that in the course of the decade it was not found possible to make use of all the knowledge resulting from the new contributions of science and technology in the countries of the Americas. Whether it is because there were no services, or properly trained technicians, or essential equipment, the plain fact is that only some of the inhabitants, and those mostly in the larger cities, enjoyed the benefit of up-to-date medical care, preventive or curative.

The Governments agreed as to the urgency of improving the **organization and administration of institutions** to attain the general and specific targets of individual programs and of national plans. Of the initiatives promoted by the Pan American Health Organization over the last ten years, few are as important as that designed to give administration the status it deserves, to modernize administrative techniques properly, and to give administrators the prestige their work merits. Administration comprises a series of disciplines which until fairly recently were either ignored or underestimated by health specialists, who failed to realize that without them the goals of their programs could not be attained. As has often been said, no less important than deciding what to do is deciding how to do it. The planning process has revealed the weaknesses on the administrative side. The science and art of administration have not been static; on the contrary, administrative techniques have taken advantage of the latest scientific developments as embodied in systems analysis, and today use is made of computers. The volume of health investments in the Americas, the complexities of the procedures used, and the number of officials devoted to the task, are reason enough for this. For the developing countries of the Region, perhaps the main problem is that of deciding what computers should really be used for, which means balancing the cost against the benefits to be derived. There is no denying the importance of information which is provided at the right time and is as accurate and complete as possible. But it does not follow that

it must always be compiled, analyzed, and distributed, unless the data are indispensable to the recipients in the exercise of their duties. In other words, we must pay attention to what science has to offer, but we must adapt it to the actual capacity of institutions to solve the problems that occur most frequently.

It would appear that in the decade now beginning, and in those that will follow, greater and greater use will be made of the technique we call systems analysis, in the investigation of the phenomena underlying health and sickness, in the application of methods of reducing morbidity and mortality, and in the administration of the services involved. The Computer Center for Health, officially inaugurated in April 1970 in Buenos Aires, under the auspices of the Government of Argentina and this Organization, will help in the training of professionals and the study of problems, and over the long term it will cooperate with Governments in determining the areas in which the use of computers is justified.

This practical reform will be given impetus by modernization of the traditional health administration methods. Progress here has been substantial in a number of countries over the last ten years. It can be seen in program budgeting, in accounting and finance procedures, in the structuring of personnel and supply departments, and elsewhere. There is still much to be done to reach a level of efficiency where expenditure will be reduced to a minimum and unnecessary operations and costly, inefficient duplication avoided. This is directly bound up with the training of professionals and technicians in administration, and the investigation of problems where the solution will help in the formulation and execution of alternatives. Even in the event of a decision to use computers, the basic data must be of first-rate quality if they are to reflect the real state of affairs.

The Organization has promoted and itself provided active collaboration in this field and will continue to do so in the light of its significance for better health.

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A feature of the 1960's was the marked interest in university teaching in the field of **medical education**. The growing imbalance between the palpable needs of society and the lack of manpower—especially professionals—to meet them is at the root of this situation, one that has been experienced throughout the world. The concentration of physicians and other health professionals in the large urban centers to the detriment of the rural environment is common. At the same time, there has been haphazard migration from the country to the cities, and shantytowns lacking even minimum services have sprung up on the periphery of the cities, thus aggravating the general problem in all the countries. Where the problem has been studied in some depth—a noteworthy example being the study of human resources in Colombia³—it is found that the teaching and learning process must be looked at closely, since it has shortcomings which need to be remedied. Nor can we fail to mention that the students themselves have voiced the urgency of university reform, sometimes in no half-hearted way. There are those who believe that this problem cannot be dissociated from political structures, while others feel that strictly educational components are involved which it would be well to analyze and to reform where necessary.

The *Quadrennial Report* describes how the Organization over the last four years has sponsored a study of 130 medical schools in Central and South America, a real sociological investigation of the process of training physicians. A preliminary analysis indicates that there is a clear dissociation between secondary education and medical education, between medical education and university education, and between the university and the government bodies—in this instance the ministries of health—and public and private institutions concerned with the prevention and cure of disease. What is perhaps most serious is that the teaching process is not in keeping with the

³*Study on Health Manpower and Medical Education in Colombia*, Parts I, II, and III. Sponsored by the Ministry of Public Health of Colombia, the Colombian Association of Medical Schools, and the Pan American Health Organization, 1967.

actual situation the students will have to live with when they have graduated. They are taught in more or less great detail the make-up of a human being, from the cells to the various organs and systems, and they are required to build these up into the synthesis represented by the individual as a biological unit and a social entity. Curricula and technical and administrative structures are closely interdependent, and hence rigid. The transmission of knowledge is thus done piecemeal. On the same principle, there is a tendency to compartmentalize communities and not to relate problems as they exist and evolve to the human and material resources available to solve them. The various types of health professionals are trained separately, and they therefore tend to go their separate ways and the greater the specialization, the worse the isolation.

The idea has emerged of creating faculties of health sciences, where the teaching would be multidisciplinary and cover the various professions simultaneously, subject of course to such variations as derive from the specific responsibilities of each in the social environment and the knowledge needed to fulfill those responsibilities. A scheme on these lines is being developed at the University of Brasília. Other universities in the Americas have likewise expressed an interest in introducing such schemes. Here, I think, is another basic item for the agenda of the decade now beginning and for later decades. Needless to say, the training in medical studies and kindred disciplines must be intensified; it seems likely that other methods will be devised for making the teaching more effective than it is today. In any event, between teachers and students, for whom the goal is after all the same, there must be an atmosphere of mutual understanding, a constructive dialogue accompanied by a steady improvement of the methods of achieving real knowledge. This is the principle underlying the "laboratories of human relations and medical teaching" sponsored by the Organization in the last eight years and held in 15 countries of the Region with the participation of about 2,000 teachers.

Over the last decade the need has become manifest to

apply the educational sciences to the teaching of the health sciences. It implies a knowledge of a series of disciplines which must be acquired by those interested in specializing exclusively in this field. They must of course be teachers with a considerable amount of experience. Their presence is essential today to catalyze and shape the new ideas on the university in relation to development as referred to above. The World Health Organization and the Pan American Health Organization have an important contribution to make here.

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Whatever appears most ill-timed in our societies is invariably explained by its background. The word **ecology** has come into fashion in the last few years, and rightly so. It emphasizes the subtle process of adaptation of living beings to the surrounding **environment** of which they are part. The environment changes, either through the designs of nature or the intervention of men, as a consequence of economic development. It is possible to differentiate in the environment components of a chemical, physical, biological, psychological, and social character. All of these, alone or in combination, give rise to health problems—either by direct action (as in the case of microorganisms); because they reach concentrations which have harmful effects (as in the case of water, air and soil pollutants); because they upset the balance of species (as for example insecticides); or because they are factors causing psychological disturbance and interfering with social harmony.

The Director-General of WHO, speaking at the Forty-Fifth Session of the Executive Board, said that "The phrase 'environmental factors affecting man' had come to mean all things to all men, since it concerned both the qualitative and the quantitative aspects of man's social and physical environment and ranged from a relatively narrow concern with pollutants to all aspects of ecology and the biosphere. Neither of those opposing lines of approach were fitting from the point

of view of WHO's operations: the first because pollutants, although admittedly of great importance, represented only one of the major external factors affecting man's health and the second because it was too comprehensive."⁴

Discussions are going on at the present time, with unusual vehemence in the technologically advanced countries, concerning the urgency of environmental control, especially in regard to factors whose actual and potential effect is calculated to interfere seriously with the lives of more and more people. A strong public awareness has developed on this question, and it has aroused the concern of Governments and universities. The solution of the manifest problems and the avoidance or reduction of their impact alike constitute a vast field of research, since the number of variables is enormous.

In virtually all the developing societies in the Americas, although in differing degrees, situations are emerging which will inevitably lead to that found at present in the developed countries. Hence we must forestall the state of affairs described above.

Meanwhile the deficiency in basic sanitation—installation of water supply services, solid waste disposal, food protection, and occupational medicine—persists. So long as there are families and communities without these basic elements of well-being, this and nothing else should be the priority of Governments, as reflected in the level of investment of domestic resources and external capital. The progress made in the Americas in the last decade is undoubtedly considerable as far as water supply is concerned, but a great deal has still to be done, especially in the rural areas, and its importance is vital.

As I have said; Governments cannot afford to be indifferent to the visible consequences of industrialization, urbanization, and internal migration. Many of the large cities in Latin America and the Caribbean area have concentrations of air pollutants injurious to health and living conditions; and the same is occurring in regard to other components of the

⁴*Official Records of the World Health Organization* 182 (Part II), p. 40, 1970.

environment. It would appear to be vital to devise a policy to be reflected in urgent direct action, identification of new problems, and education. This is yet another item for the health agenda of the 1970's and subsequent decades, and it can help to determine the functions of WHO and PAHO as laid down by their Governing Bodies.

As has been aptly said, there is a need not only for new methods and programs to prevent or control pollution, but for ideas and values designed to make the future world safe to live in, a world where life will be measured rather in terms of improved human relations than of increased gross national product. The restoration of the natural environment of the earth and the discovery of how to live peacefully on it will become the national goal.

* * *

Because health is a right, the population increasing, and social demand growing, all matters relating to **timely medical care of the sick** continue to be vital issues. In accordance with the traditional approach, we must try to prevent disease; and if this cannot be done, we must try to reduce its scope and to prolong life. This has led to the creation of a complex process, involving huge investments in all the countries, in the form of medical services. Since over 80 per cent of the national health budgets are earmarked for curative medicine, and since also we still cannot meet the needs of all those requiring such medicine, the urgent necessity has been felt for other systems calculated to produce higher output from the installed capacity. It is well to bear in mind that no society has so far attained the ideal of providing the best possible medical care to all the inhabitants all the time.

We find in the Americas the paradoxical situation where hospitals of high quality, with the latest equipment, have empty beds while at the same time there are sick persons without access to these or other institutions. This basic problem of an imbalance between needs and resources is ag-

gravated by a variety of factors, including not only a shortage of beds, but their deficient geographic distribution and the poor state of repair of the establishments. Some are antiquated, over 50 years old, yet here is where physicians are being trained.

Other deficiencies are the poor level of utilization and low output of the establishments available. The former is seen in the use of extremely costly equipment for only a few hours a day; the latter in the fact that for various reasons, many professionals, technicians, and auxiliaries do not furnish, either in quality or in quantity, the medical care which in principle could be expected of them. In addition to this, there are factors which are not always easy to cope with, such as economics, average income, relationship between private practice and State medical care.

Apart from the fact that coverage is limited and the facilities concentrated largely in the main urban centers, there is a shortage of both professionals and health auxiliaries. As is well known, the deficit is much greater in the case of nurses than of doctors, but there is also a shortage of maintenance engineers, technicians, and other specialists.

Finally, there is the rising cost of the entire operation. Wages are increasing, equipment is more complex and more indispensable, construction costs are rising at a parallel rate, so that all in all the investment mounts up, as I have said, to represent over 80 per cent of the health budgets of the individual countries. It is no wonder that Governments are anxious to get the best possible output from the installed capacity and to keep construction of new establishments down to the absolutely essential minimum. This is precisely what operational research tries to do, and hospital care provides it with a wide field of application which needs to be developed.

Nevertheless, there are other possibilities to be achieved by better organization of the whole process. Under the heading of national health systems, a functional structure would be built up in an attempt to concentrate all the available re-

sources on the existing problems, so as to reach fixed targets which would be evaluated periodically. According to the legislation in force, the system could take the form of a single service or represent a combination of various institutions. In any case it calls for the formulation and implementation of a policy, the delivery of services, financing, and development of manpower resources. I need hardly repeat that the system, whatever its structure, must operate in terms of the health plan.

This is the background underlying the activities of WHO and PAHO in regard to medical care. These activities are concentrated in areas where they have a catalyzing effect, e.g., direct advisory services, education, and research. But the problem as a whole is another important item for the agenda of Governments and international organizations over the present and succeeding decades. Not all the experience of the past is useful today; it must be brought up to date in the light of experiments which stray from the beaten track in search of ways and means of serving patients promptly and efficiently.

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Notable advances have been made in the control of **communicable diseases**, acute and chronic; but these still warrant priority in the Americas. Between 1956 and 1967 the mortality rate in children under 5 years of age from infectious diseases dropped by some 52 per cent, from diseases of the respiratory system by 35 per cent, from those of the digestive apparatus (largely gastroenteritis) by 48 per cent, and from ill-defined causes by 42 per cent. This progress, which we have reason to believe has continued, is the consequence of the application of preventive measures, in particular immunization, installation of water supply services and basic sanitation, and health education. But in spite of the knowledge we have today, there is still too high a level of mortality which could be avoided.

"A careful study of the reasons for this situation has shown that one of the main causes lies in shortcomings in the administration of vaccination programs, principally in the form of ill-defined objectives, activities that are not conducted at useful levels, inadequate organization, and lack of continuity of the programs. Another factor is the use of vaccines which are of poor quality as a result of defective production methods or loss of potency due to poor preservation."⁵

This opinion was given in the Final Report of the Seminar on Administrative Methods for Vaccination Programs held in Montevideo, Uruguay, in November 1968. A complete system was sketched out, to be supplemented by evaluation of targets and epidemiological surveillance, the responsibility in this last instance being all the greater where the incidence of the particular disease is reduced.

There should be no smallpox or poliomyelitis by the end of the 1970's. The incidence of the communicable diseases frequent in early childhood should decline even more rapidly. This will, of course, depend largely on the extent to which malnutrition is reduced. If the targets of the Charter of Punta del Este are to be attained, the present figures for deaths from tuberculosis should be cut by one half. In regard to malaria, an endeavor must be made to bring 99 per cent of the area exposed to risk today into the maintenance phase; this will mean the introduction of techniques to solve the problem of resistance of the anopheles mosquito to chlorinated insecticides and the regularity of financing and political decisions.

It is likewise to be hoped that the countries and territories which today are free of *Aedes aegypti* will take due steps to avoid all reinfestation; that where this has taken place, they will succeed in once again eliminating the vector; and that where infestation exists today, a systematic program will be undertaken to eradicate it.

The entire group of communicable diseases for which control or eradication methods exist should, and I think will, lose the unenviable primacy they have today in the Hemisphere.

⁵Document SMAPV/18, 16 November 1968, p.1.

Here is another item of the agenda for the 1970's and succeeding decades.

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“What happens to children in their first five years marks them for the rest of their lives...people are prisoners of their nutritional past.”⁶

This single statement should be enough to reveal the seriousness of the **malnutrition** problem in the Americas; but the situation is even worse. A mere glance at the mortality rate in infants and children under 5 years showing malnutrition as the underlying cause, bears tragic witness to what is occurring in virtually all the countries to a greater or lesser degree. Underregistration, as we well know, at times applies to a considerable proportion of both deaths and malnutrition cases. This can be seen clearly in the Inter-American Investigation of Mortality in Childhood, sponsored by the Organization. A preliminary analysis of 6,519 deaths⁷ covering 13 areas in eight countries provides sound arguments to corroborate this.

If it is true that health is a right, every human being should have a biologically balanced diet. This is not a mere national goal but one which transcends frontiers and embraces the whole of mankind. We cannot remain unmoved in the face of death by inanition or accept arguments which merely help to perpetuate a state of affairs repugnant to our conscience. We cannot go on being divided into two groups, those who eat properly—the privileged ones—and those who hardly eat enough to subsist. We must not wait for research to confirm

⁶“René Dubos,” by Anthony Bailey. *Horizon*, Vol. XII (3), p. 58 (Summer, 1970).

⁷See “Progress Report on the Inter-American Investigation of Mortality in Childhood,” submitted to the Ninth Meeting of the Advisory Committee on Medical Research, Document PAHO/ACMR 9/18, 15 June 1970, p.2.

the fact that malnutrition is a condition contributing to mental retardation, or at least inhibits the learning process in children. We must act, making use of the resources available in each country, and supplementing them with imported resources. This was appreciated and accepted by the Governments when they decided to formulate a food and nutrition policy primarily to meet the biological needs of the population and as far as possible those of the economy as well. The ministries of health and agriculture have taken a decision to this effect,⁸ and a Group of Experts set up by FAO and our Organization⁹ has defined bases and practices to this end. We are aware that this is an extremely complex task. The interests, ingrained habits, traditions, and customs to be taken into consideration are many. The problem involves Governments as a whole; hence the absolute necessity for coordination to achieve goals which, we repeat, must be principally concerned with feeding the population. The statistics are incomplete; the technology is anything but modern; practices are in many instances antiquated; land is unproductive; and there is an enormous shortage of professionals and auxiliaries. Although it may seem paradoxical, at the present time there is a great waste of food. I should like to stress here, since it is a matter of direct interest to us, the loss of proteins through the zoonoses and foot-and-mouth disease, which also gravely affects the economy. The cost-benefit relationship between immunization and its effects is measurable in monetary indicators; but whatever the magnitude of these indicators, they do not properly reflect what the loss of life signifies. Rodents, insects, and other species likewise destroy vast quantities of foodstuffs.

⁸Resolution IX, "Nutrition Program in the Americas," XIX Meeting of the Directing Council of PAHO, Final Report, *Official Document PAHO 99*, p. 59. Resolution IV, "National Food and Nutrition Policies," III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control. Final Report, Document RICAZ3/26, p. 13.

⁹*Elements of a Food and Nutrition Policy in Latin America. Scientific Publication PAHO 194* (English edition in preparation).

The formulation and steady implementation of the food and nutrition policy is an urgent item on the agenda for the decade now beginning and those which will follow. Governments and international organizations, public and private, must join forces to respond to this ineluctable challenge to our consciences, to reduce malnutrition in children, pregnant women, and adults, and to help to ensure that each of these tasks is fulfilled. As I have said, nothing would appear to be impossible in the Americas today, however great the undertaking.

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The debate on the relationship between **population and development** has been one of the outstanding events of the decade. It has gone on the world over, and it has been crystallized in declarations by Governments and in the resolutions of international bodies. The Churches have interpreted it in terms of the basic tenets of their particular faith. For many it is the most important of all questions for the future of mankind. Clearly, the very discussion of "family planning" is affecting customs and shaking deep-rooted convictions—and even more so, the application of any system for the spacing of children.

In the Americas, the Governments have established their policies and the terms under which advisory services can be obtained on request from WHO and PAHO. They have told us that we must concentrate on achieving health objectives and not demographic objectives. Our task is not the size and structure of the population, but the reduction of the impact of disease and death, and assistance to ensure that every household is properly informed and can make its own decision as to the number of children it wants. To this end family planning activities must be an integral part of health services, especially those aimed at maternal and child protection.

The experience gained up to now in the countries carrying out this type of activities shows that there are still great gaps

in the knowledge of the physiology of human reproduction, and that the contraceptive methods in use are deficient and in some cases harmful. Hence the importance of intensifying basic and applied research. The teaching of these matters is limited in the universities, which makes it difficult, where there is a definite population policy, to put it into practice.

There is likewise a lack of knowledge of the relationship between the various sectors of the economy and the size and structure of communities. Programming of the manpower resources required by a given country for its economic and social development is complicated by the fact that there are no bases for forecasting how many people are in need of training and how they should be trained in each undertaking, whether government or private. There is not sufficient information available as yet to justify an objective assessment of what the number of children means for a family in terms of income and the prospects of ensuring them a normal growth and giving them the opportunity for becoming what they want to become.

Here is another field of action for the 1970's and later decades. International cooperation, given in accordance with the views of Governments which consider it necessary, can play a very important role in education, in research, and in providing advisory services for the formulation and execution of programs.

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“The development of science and the use of science to aid man depends more on an understanding society than on an affluent society. The most fundamental problem confronting the development of science—including biomedical science—in Latin America relates not to any specific deficiency but to a complex of social attitudes that result in a nonscientific or an antiscientific attitude on the part of the population generally and often on the part of political leaders. Leaders of science in

Latin America bear a heavy responsibility to change these attitudes."¹⁰

While this argument can still be substantiated, definite progress has been made in the Latin American countries and the Caribbean area in the last decade. The United States of America continues to be the world center for **scientific research** and, in our own field, particularly for research in molecular biology.

During the past decade, the Pan American Health Organization endeavored to coordinate and systematize studies relating to priority health problems. It set up a Department for the purpose, and it had the valuable experience of the Advisory Committee on Medical Research. The work done can be seen from the Advisory Committee's reports,¹¹ the publications of PAHO, and the analysis of projects.

An over-all view indicates that valuable contributions have been made to the knowledge and understanding of certain phenomena which occur in human beings and societies, in both normal and pathological states. Among the more important are those in nutrition in its various aspects; the dynamics of child and adult mortality and its many causes; certain zoonoses and their prevention; malaria, in regard both to vectors and to plasmodia; and education with a view to the measurement of manpower resources.

This applies both to problems which require research for their solution and also to budgetary sources. A considerable proportion of our funds do not derive from the regular budget, that is to say, from government contributions, as laid down in our Constitution; they represent voluntary grants made by public or private institutions but earmarked for specific purposes. Hence it has been stated that "Latin American countries might well set as a goal the investment in

¹⁰*Science Policy in Latin America. Scientific Publication PAHO 119, p. 5, 1966.*

¹¹*Research in Progress, 1970. Publication RD/49/5(9)-R, June 1970.*

research of .5 to 1 per cent of the gross national product, depending on the relative wealth of the nation. Biomedical research is essential to the intellectual and cultural advancement of nations and to the attainment of both humanitarian and economic goals."¹²

This is a goal we should like to see attained in the course of the decade, at any rate insofar as it relates to the health sciences.

It would be useful to evaluate what has been done; to identify other areas which have emerged as a consequence of the progress made; to determine what machinery should be put into motion to institutionalize research in the individual countries and throughout the Hemisphere; and to link all this effort closely with the universities with a view to the training of professionals and the further training of graduates; in short, to formulate and introduce a new plan of study in the biomedical sciences as a contribution to the knowledge of the normal processes of human life, and to the treatment and prevention of pathological conditions. Here is yet another item for our agenda which, by its nature and purposes, extends its present horizons to the end of the century.

The spiraling growth of the technology and industrialization of health equipment, materials, and drugs makes the prospect for the 1970's somewhat disquieting. The difficulty will be not so much to formulate possible alternatives as to select those best calculated to attain the targets set. At the same time, the 1970's will be a decade of opportunity if we are able to make proper use of the lessons of the last decade, to benefit from past mistakes, and to put our faith in the innate ability, the good intentions, and the heartfelt and legitimate aspirations of the people. Hence the responsibilities of those with the decision-making power to reduce the impact of mortality and morbidity are great and will be still greater.

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¹²*Science Policy in Latin America. Op. cit.*, p. 5.

In the preceding pages I have identified some of the basic health problems whose solution should form part of an agenda for the coming decade. They are related both to the situation in the health sector in respect of the dynamics of disease and to the resources employed—human, financial, or material. The account does not claim to be complete, but it does include what is revealed by the progress made over the last few years, what is identified in social demand, and what technology tells us it is vital to apply. The Governments decide, and the international bodies that advise them, including PAHO and WHO, must amend or mold their policy accordingly. The more clearly defined the plan, and its programs and projects, the more coordinated and efficient the work of these bodies will be. If we seek complementarity, the pivot must be the human beings; the means, national investments of every kind; and international coordination and external capital must be complementary.

“Man and the earth are two complementary components of an indivisible system. Each shapes the other in a wonderfully creative symbiotic and cybernetic complex. The theology of the earth has a scientific basis in the simple fact that man emerged from the earth and then acquired the ability to modify it and shape it, thus determining the evolution of his own future social life through a continuous act of creation.”¹³

This is the continuing theme of our agenda, as so profoundly expressed by René Dubos: the protection of health and the prolongation of life.

¹³Dubos, René. *A Theology of the Earth* (Lecture delivered on 2 October 1969 at the Smithsonian Institution, Washington, D. C.). U. S. Government Printing Office, 1969, p. 16.

Copies of this booklet may be obtained from the Pan American Sanitary Bureau, Regional Office of the World Health Organization, 525 Twenty-Third Street, N.W., Washington, D.C., 20037, U.S.A.