directing council

PAN AMERICAN HEALTH ORGANIZATION

XIX Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXI Meeting

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RESOLUTIONS ADOPTED BY THE 61st MEETING OF THE EXECUTIVE COMMITTEE REFERRED TO THE DIRECTING COUNCIL

The Director has the honor to transmit to the Directing Council Resolutions VIII, X, XII, XIII and XV adopted by the Executive Committee at its 61st Meeting.

For convenience in discussing these resolutions, the appropriate background data are attached.

* This resolution and the appropriate background data are presented in Document CD19/21, Addendum.

RESOLUTION VIII

PREPARATION OF DRUGS AND PRODUCTION AND MAINTENANCE OF EQUIPMENT AND INSTRUMENTS FOR HEALTH PROGRAMS

PREPARATION OF DRUGS AND PRODUCTION AND MAINTENANCE OF EQUIPMENT AND INSTRUMENTS FOR HEALTH PROGRAMS - REPORT OF THE DIRECTOR

At its 61st Meeting held in Washington, D. C. in June-July 1969, the Executive Committee approved the following Resolution VIII:

"THE EXECUTIVE COMMITTEE,

Considering the heavy financial burden on the economy of the countries of the importation of equipment, instruments, and other necessary elements for the efficient conduct of health programs; and

Bearing in mind that it is desirable to encourage, with the support of national and international financial institutions, the national production of specialized equipment and instruments so as to improve their quality and reduce their cost and thereby strengthen the national economies and alleviate balance of payments problems,

RESOLVES:

1. To request the Director to examine the feasibility of a project designed to assist the countries in appraising their capacity to prepare drugs and biological products and to produce and maintain equipment, instruments, and other necessary elements for the efficient conduct of health programs as well as in determining the import and export of those products and their repercussions on the national economy.

2. To request the Director to prepare an estimate of the resources required to carry out the above-mentioned study and to submit his conclusions to the Directing Council."

As was pointed out when the Executive Committee discussed this proposal, most of the equipment, instruments and supplies needed by the health services are at present imported and account for a considerable part of the funds allotted to the health sector; these imports involve the use of foreign exchange and affect the balance of payments.

I. Scope and purposes of the study

From the ideas expressed, it would appear that the study requested would primarily cover medical and surgical equipment for diagnostic and treatment purposes. It would not cover sanitation and vector-control equipment and products, nor office supplies for hospitals and health centers that are not specific to those services. This point must first be made clear, for the scope of the study is so broad, covering an estimated 50,000 articles--that a proper investigation of this project is no easy matter.

The articles and products that would need to be examined therefore fall into four groups:

1. Drugs and pharmaceutical products;

2. Vaccines, sera, and other biological products;

3. Expendable consumer goods that are relatively easy to manufacture, such as hospital beds, surgical gloves, scales for patients; instruments for the correction of functional disorders, such as spectacles, prosthetic devices, and the like; and

4. Mechanical, electronic, and radiological instruments and equipment whose manufacture calls for highly specialized technology.

The following principles should govern such a study:

1. The most realistic goals, that is, those that are most in line with its possibilities and needs should be defined for each country. While one of the purposes of the study is to promote the development of Latin America as a whole, the characteristics of each individual country must be taken into account, otherwise the setting up of a single set of objectives may lead to a rigid view of the problems connected with the production of health equipment.

2. The possibility of manufacturing this equipment should be examined in the light of the overall economic position of each country, so as to ensure an integrated development effort.

3. The importance of standardizing health equipment throughout Latin America should be emphasized and standardization should be encouraged wherever possible.

4. As an integral and essential part of any study of the possibilities for manufacturing this equipment, efforts to increase

intra-regional cooperation should be stressed. Wherever possible, each country's program should be aimed at increasing trade between countries in the Region and thereby the flow of resources needed for accelerating the economic development of Latin America. An additional advantage would be the creation of sufficient purchasing power to justify large scale production.

5. Manufacturing programs should be planned for a specified number of years (five, ten or fifteen years) and targets for intermediate dates should be established, where necessary. Planning for the intermediate years must be aimed at the achievement of long-term objectives, and target dates must be specified wherever possible.

6. Once planning for the manufacture of equipment is begun, it should become a continuous and dynamic process embodying procedures for the periodical evaluation of the progress made in each country. Plans should be modified to take into account the changing needs of each country and of Latin America as a whole.

II. Development of the study

Initially, products in the four above-mentioned groups a country is actually producing could be inventoried. Very probably a list of these products already exists in the competent state institutions. If that were so, there would be no need for the Bureau to participate in that stage of the study. If, in addition to an inventory of existing products, information is required on the quality of the products, then it would obviously be necessary to seek the advice of specialized consultants on instruments, equipment, and drugs.

A government may be interested, as it appears from the resolution of the Executive Committee, in ascertaining the capacity of the country not only to meet its actual and potential needs but also to participate in foreign trade. In that case the following eight aspects would need to be investigated:

Economic base
Natural resources
Manpower
Technological capabilities
Present and future need for health equipment
Product study
Quality studies and price
Maintenance program

a) Economic base. Any meaningful study of the manufacture of health products must be made in the light of the general economic situation in a country. Consequently, the first step is to collect pertinent data so as to ascertain the level of industrial development, per capita income, degree of urbanization, composition of the economically active population, foreign trade patterns, the relationship between the agricultural, industrial and service sectors of the economy, production of electric power by installed capacity, or other economic indicators, as well as the feasibility of a plan for the production of equipment and drugs for the prevention and treatment of common diseases.

b) Natural resources. Next, it will be necessary to study the availability of raw materials in each country as well as present and possible ways of working up this material. This stage of the study is primarily a cataloguing effort, using the data available both in the country and in the region as a whole. Natural resources which do not exist in a given country but which may be rapidly and easily obtained from other sources must also be considered.

c) Manpower. The third step, a detailed examination of the manpower available in each country, may be divided into two parts: first it will be necessary to draw up an inventory of the skills available in each country. This must go hand in hand with a survey of the training available, including existing programs and qualified instructors. As in the case of natural resources, this inventory will be primarily a cataloguing effort using existing data. The second part of the investigation concerns the national production of specialized health equipment. Once the feasibility of producing certain specific products in a country has been established, the manpower needed for each group of products must be determined and proper training programs prepared and evaluating procedures set up.

d) Technological capabilities. The technological gap in many Latin American countries, which has been identified as one of the main causes of underdevelopment, is well known. Consequently, it is of the utmost importance to determine possible levels of health equipment production in each country of the Americas in the light of its technological capabilities. First the available statistical data must be studied and further information should be obtained by means of questionnaires and interviews, and then the existing and potential technological level in each country should be thoroughly assessed.

e) Demands and needs. A careful study of the demand and need for equipment and drugs in each country must be made. It should be supplemented by an analysis of governmental and private plans for expanding the network

of health services, and by discussions with doctors, dentists, and pharmacists to ascertain their opinions on development possibilities in the health field. An investigation should also be made of the preferences of physicians for particular equipment or products, and of the legal regulations governing their purchase for public services, since to ensure a proper market for the production planned there must be some guarantee that the countries are willing to buy equipment and products of Latin American manufacture.

f) Product study. Because of the specialized technical nature of medical equipment, manufacturers have usually produced equipment for a particular hospital department or professional speciality. This is because the necessary technical knowledge for manufacturing each product is similar. These groupings have a tendency to develop into "systems", and those systems, in turn, develop interrelated manufacturing capabilities. In other words, once a manufacturer begins a product line, he tries to devote himself to the manufacture of all products closely related to that line, since he has already acquired technical competence in the field. The grouping of products by hospital department or professional speciality has advantages for marketing and sales, since it is easier to obtain information about the strengths and weaknesses of products when they are grouped in that way, and improvements can easily be incorporated into the whole product line.

g) Quality studies and price. The certainty that the products produced will be of good quality must be borne in mind in conducting the study we are discussing. Obviously, governments cannot accept articles and equipment the quality of which does not guarantee their efficiency for the purposes for which they are intended, or which may have harmful effects. The regulations governing the purchase of equipment and pharmaceutical products issued by ministries of health usually contain specifications as to quality and price. The system of public bids is used in many countries. Similar standards should be applied, as we pointed out, to articles to be used both in the producer countries and in those that import them. The prime consideration should be the protection of the health of the population, a fundamental responsibility of the government.

Usually quality, which is the result of complicated research, goes hand in hand with high prices. The possibility of price reductions depends on the volume of consumption, and therefore, on a large-scale market. The purposes of the resolution of the Executive Committee are thus in line with efforts to create a Latin American Common Market, of which the initial stages are the Central American Common Market and the Latin American Free Trade Association.

This also explains the importance of examining the capacity of a country to carry out scientific research on specified preparations and equipment, its technological capacity to manufacture them, and produce good quality products, and its administrative capacity to ensure prompt production and distribution. These are essential conditions for participation in a market economy.

h) Maintenance program. The maintenance of health equipment and facilities, also mentioned in the resolution refers to a service and is, of course, different from that of industrial production. The study will therefore have to include a survey to ascertain whether professional and technical personnel are available and whether it is the custom to maintain equipment, for without maintenance the life of instruments, in particular that of complicated instruments, is very limited. Advisory services given to the various countries by the Bureau show that there is an urgent need in virtually all the countries for the organization of systems of maintenance services.

The results of a country by country analysis of each of these aspects for the four groups of products mentioned above will be different, reflecting variations in the degree of development in general and the situation in each of the countries.

III. Preparation of drugs and biological products

With respect to drugs, pharmaceutical products, biological products, and reagents, we suggest that consideration be given to the many resolutions of the World Health Assembly and of the Directing Council of the Pan American Health Organization and the recommendations of the Special Meeting of Ministers of Health of the Americas concerning the quality control of drugs*, the establishment of pharmaceutical industries in developing countries, and the safety and efficacy of drugs. Inquiries made by the Bureau show that there is a national industry in virtually all the countries, that the number of preparations registered is excessive, and that not all of them are used because their therapeutic value is unsatisfactory and that the system of quality control is inadequate. Recently developed drugs, including antibiotics, are usually imported, either in bulk to be dispensed in the country, or in units. In any event, for the purpose of Resolution VIII of the Executive Committee, the situation in each particular country must be studied.

* Resolutions WHA22.41, WHA22.50, WHA22.54 (1969); WHA21.37 (1968); WHA20.34 (1967); WHA19.47 (1966); WHA18.36 (1965). Special Meeting of Ministers of Health, Buenos Aires, Argentina (1968), Final Report, Chapter XIV. XVI Directing Council, Resolution XII (1965). XVII Pan American Sanitary Conference, Resolution XXXV (1966).

Mention must also be made of the generosity which has been a characteristic of the Continent, as shown by the donations of different types of good quality vaccines that have been made to help overcome emergencies.

This document shows that the extent and scope of the study proposed will depend on each government's interest in:

1. (a) A list of the preparations of interest to it that are at present being produced. For this purpose, we believe that international consultants are not required.

   (b) A report on the quality of those products, in which case the opinion of specialists may be necessary.

2. (a) If the Government is mainly concerned with present and future needs, any study of expected consumption must in our opinion be based on the series of areas we have summarized.

   (b) If, in addition to the foregoing, a Government wishes to export to other countries, the investigations in the country concerned will have to take into account the potential demand of the Continent. We wish to insist, because we believe it is absolutely essential, that the quality of drugs, biological products, and instruments must be guaranteed.

IV. Conduct of the study in the countries that request it

An investigation of this nature clearly calls for specialists in various areas of development and the collection of information nationally and internationally on the various aspects it covers. In accordance with the method applied we can estimate the resources needed, but the actual resources required will depend on the decisions of the governments, on the number of products in which they are interested, and on the situation in each country. Furthermore, some of the areas to be investigated are obviously unusual for an international health agency so that it will be necessary to contract the services of persons possessing the necessary experience. Such persons are generally in private employment and they earn much higher salaries than those usually paid in our Organization, especially when they are concerned with complicated equipment and products. Consideration should also be given to the time such an examination would require, which again will vary according to the characteristics of the country concerned.

The Director therefore believes that the study proposed by the Executive Committee is feasible, although complex, and that the cost, which is not included in the current Program and Budget Estimates of the Organization, would have to be estimated for each individual country once its Government had decided on the scope it wishes to give the inquiry.

RESOLUTION X

FLUORIDATION OF PUBLIC WATER SUPPLIES

REPORT OF THE DIRECTOR ON THE PROGRAM OF FLUORIDATION OF WATER SUPPLIES

The Director of the Pan American Health Organization has the honor to submit to the XIX Meeting of the Directing Council a report on the status of the fluoridation program, as requested by Resolution X of the 61st Meeting of the Executive Committee:

RESOLUTION X

"THE EXECUTIVE COMMITTEE,

Recalling that the Pan American Health Organization made an exhaustive examination of dental problems in the Americas at the XV Meeting of its Directing Council, held in Mexico City in 1964; and

Noting that that Meeting recognized the importance of the fluoridation of public water supplies in reducing problems caused by dental caries and approved Resolution XXIII instructing the Pan American Sanitary Bureau to promote fluoridation programs in the Hemisphere,

RESOLVES:

1. To recommend to the Director that he prepare a report on the present status of the program including its financing by countries that are adding fluoride to public water supplies.

2. To recommend to the Directing Council that it include an item on this subject in the agenda of its next meeting."

Since 1954, five WHO reports have been presented, advocating fluoridation and two Regional Committees have recognized and stressed the need for this measure, in addition to the UNICEF-WHO Joint Committee on Health Policy, February 1967.

On July 23, 1969 the XXII World Health Assembly recommended the Member States to "examine the possibility of introducing and where practicable to introduce fluoridation of those community water supplies where the fluoride intake from water and other sources for the given population is below optimal levels, as a proven public health measure; and where fluoridation of community water supplies is not practicable to study other methods of using fluorides for the protection of dental health".

An extensive review of the dental health problems and the benefits of fluoridation were presented in a report by the Director (Document CD15/29) to the XV Meeting of the Directing Council, Pan American Health Organization, September 1964, at which a resolution was passed resolving:

> "1. To take note of the report of the Director on the fluoridation of public water supplies (Document CD15/29) and to endorse the policy outlined in it.
>
> "2. To note with satisfaction the terms of the recommendations on fluoridation that were adopted by the IX Pan American Congress of Sanitary Engineering, organized by the Inter-American Association of Sanitary Engineering (AIDIS) and held in Bogota, Colombia, in June 1964.
>
> "3. To suggest to national authorities having responsibility to provide public water supplies that they take the necessary steps to begin fluoridation in water systems which have not yet adopted that measure.
>
> "4. To recommend that the Director continue his efforts to obtain the funds needed to implement the proposed program."

The Director took note of the provisions of paragraph 4 above, ". . . to obtain the funds to implement the proposed program." and a plan was prepared by PAHO and through financial assistance from the W. K. Kellogg Foundation, a water fluoridation program commenced.

Current Extent of the Problem

Extensive epidemiologic investigations were carried out during the early 1930's, to identify the relationship between the fluoride ion content of a water supply and the prevalence of dental caries.

It is now approaching 25 years since controlled fluoridation started in the first trial communities of Grand Rapids and Muskegon, Michigan; Newburgh and Kingston, New York; Brantford, Sarnia and Stratford in Canada, and many other cities in the United Kingdom, Japan, New Zealand and other countries of the world.

The incidence of dental decay has been reduced by 60 per cent in 12 year olds and up to 70 per cent in 6 year olds, and in these cities 22 per cent of school children are free of dental decay. A whole generation has been born and raised on fluoridated water systems and the effects of fluoride have been exhaustively studied, revealing no adverse or harmful side effects. In fact, possible additional health benefits of fluoride have been identified.

The fluoridation of water supplies in many countries of the world followed the programs initiated in the United States of America and now there are 32 countries and territories with communities providing water supplies with controlled fluoridation.

In Latin America it is noticeable that fluoridation programs have progressed in three major aspects, namely: a quantitative increase in fluoridation installations; the identification of areas containing water supplies with varying quantities of fluoride naturally occurring, and the development of systematic programs for fluoridation on a nation-wide or statewide basis. The State of Rio Grande do Sul, Brazil, for instance, has a law requiring fluoridation of water supplies.

The quantitative increase in fluoridation programs is well illustrated by the fact that Paraguay and Puerto Rico provide fluoridated water to virtually 100 per cent of the population served by community water supplies. In the Netherlands Antilles the public water supplies in Curaçao and Aruba are both fluoridated. The program in Chile has more than doubled the number of communities with fluoridation since 1963 (an increase from 27 to 65); Brazil has increased from 69 communities to 86, and Panama, with an increase from two installations to five (covering eight communities) now provides fluoridated water to 72 per cent of the population on community water supplies. It should be also noted that in five communities in Colombia, fluoridation is provided to 1.15 million inhabitants.

In other countries such as Mexico, Nicaragua and El Salvador, an awareness of the beneficial effects of fluoride has prompted the evaluation of the fluoride content of water sources and the identification of additional communities utilizing water supplies containing the recommended level of fluoride without adjustment. Venezuela, Colombia and Ecuador are now considering the progressive analysis of community water sources to indicate the existing levels of fluoridation and the extent of adjustment required.

The development of systematic national programs for fluoridation is taking place in Colombia, Surinam and Chile. Costa Rica and Venezuela are advanced in planning the fluoridation of certain communities and the introduction of this aspect of water treatment to engineers of water authorities in the Caribbean Islands has resulted in proposed projects for Trinidad, Jamaica and Grenada.

Dental data available from those countries in which fluoridation has been instituted and continued, indicate that the same beneficial effects are realized irrespective of country.

The significance of fluoridation requires assessment in terms of benefit brought about through prevention of disease and the projected future impact on health, the cost, the financial benefit to the individual, and the impact of such a preventive measure on the delivery of health services.

Considerable data have already been presented on the benefits of fluoridation as related to the prevention of dental caries, however, it must be realized that this benefit is also related to a decrease in causative agents for peridontal disease, such a loss of teeth and cavities near gingival margins, and problems of malocclusion.

The cost of fluoridation of water supplies has been estimated in the United States of America to rage between five and fifteen cents per capita per year with an average of around 10 cents per capita per year. When it is considered that a very reasonable charge for a one surface restoration or extraction would be U.S.$5.00, the economic benefit of fluoridation is evident. In Latin America, however, evidence presented reveals that costs for fluoridation are lower than in the United States of America.

National Government expenditure in fluoridation is hard to assess in many instances, since frequently costs for fluoridation are included within overall water treatment costs. Furthermore, in many countries autonomous or private water authorities exist which may or may not receive direct or indirect subsidies for water treatment or plant maintenance.

The Government of Puerto Rico spends $140,000 annually for operation and maintenance of fluoridation to some 1,520,000 persons; Brazil spends $45,000, Chile $110,400, and Panama $1,028. The Government of Colombia in 1969 allocated $117,000 and commenced a fluoridation program, and the Ministry of Health of Costa Rica has contributed $18,000 to the establishment and maintenence of fluoridation in San Jose for the year in a program to be operated in conjunction with the Social Administration of that country.

International Activities

The Pan American Health Organization began its fluoridation program in July 1967, with an international course in Cincinnati, Ohio, involving the training in fluoridation techniques to Pan American Health Organization engineers, engineer representatives of WHO, Geneva, certain representatives of country water authorties and universities, and a representative of the Inter-American Development Bank. Since that time a series of international and national courses have been held in Mexico City, Puerto Rico, Guatemala City, Caracas, Maracaibo, Medellin, Cali and Santiago. Further courses are already planned for Havana and Rio de Janeiro. These courses have been attended by 279 participants from 23 countries and territories.

Simultaneously, specific technical assistance has been provided to Argentina, Colombia, Costa Rica, Ecuador, Guatemala, Peru and Venezuela relative to the development of fluoridation programs or the selection and installation of fluoridation equipment.

A census has been conducted on the status of fluoridation and forms the basis of the data provided in the attached tables. Manuals, a text and course materials are being prepared in Spanish for the use of countries or

individual water authorities and universities for the operation of programs and the inclusion of this aspect of water treatment within the sanitary, chemical and civil engineering curriculum. It is estimated that a text and basic manual will be available by the end of 1969.

Future of the Program

In the report presented in 1964 a new approach was suggested to the promotion of fluoridation of public water supplies. This approach envisaged five stages which were:

a) To obtain an agreement that fluoridation is to be considered an integral part of the water system when the natural fluoride level is below the normal optimum concentration.

b) The enactment of laws which establish that fluoridation is an integral part of water systems.

c) The rapid training of senior engineers of national and international administrations.

d) Technical advisory services, both national and international.

e) The fluoridation of existing water supplies or water supplies which are to be constructed.

It also stressed the need for assumption of joint responsibility for fluoridation between sanitary engineers and dentists, and the provision of instruction in fluoridation techniques in schools of engineering.

The programs to date in Latin America have shown that fluoridation can be introduced effectively, and that this preventive measure can be brought to both large and small population groups. The development of concerted national programs, utilizing funds already available for the improvement of water systems where these are needed, can prevent some of the sporadic programs that failed to continue successfully in the past.

TABLE I

STATUS OF POPULATIONS DRINKING RECOMMENDED LEVELS OF FLUORIDATED WATER

IN LATIN AMERICA

January 1, 1968

Country or Political Unit	Total Population (millions)	Population on Public Water Supplies (millions)	% Population on Water Supplies	Controlled Fluoridation			Natural Fluoridation		Population using natural and controlled	% population using natural and controlled F of the popu-/lation on water supplies
				Communities Number	Population Number (millions)	% relation popu-lation on water supplies	F 0.5 mg/l ident-ified comms.	Population using F natural (millions)	(millions)	
Argentina	23.6	12.9	54	0	0	0	56	1.8	-	7.6
Bolivia	4.7	0.96	21	0	0	0	-	-	-	-
Barbados	0.25	0.25	100	0	0	0	-	-	-	-
Brazil	90.9	24.2	27	86	2.5	10.3	2	0.020	2.52	10.4
Chile	10.1	5.9	59	62	3.04	52	12	0.26	3.3	56
Colombia	19.9	13.2	66	5	1.15	8.7	-	-	1.15	8.7
Costa Rica	1.64	1.16	71	0	0	0	-	-	-	-
Cuba	7.95	6.3	79	0	0	0	-	-	-	-
Dominican Rep.	4.03	1.16	29	0	0	0	-	-	-	-
East Caribbean										
St. Vincent	0.091	0.06	70	-	-	-	-	-	-	-
St. Lucia	0.099	0.08	80	-	-	-	-	-	-	-
Dominica	0.067	0.05	68	-	-	-	-	-	-	-
Montserrat	0.014	0.014	100	-	-	-	-	-	-	-
Antigua	0.060	0.060	100	-	-	-	-	-	-	-
St. Kitts	0.038	0.038	100	-	-	-	-	-	-	-
Nevis	0.017	0.017	100	-	-	-	-	-	-	-
Anguilla	0.005	0.005	100	-	-	-	-	-	-	-
Virgin Islds.	0.009	-	-	-	-	-	-	-	-	-

.../...

TABLE I (cont.)

Country or Political Unit	Total Population (millions)	Population on Public Water Supplies (millions)	% Population on Water Supplies	Controlled Fluoridation			Natural Fluoridation		Population using natural and controlled (millions)	% population using natural and controlled F of the population on water supplies
				Communities Number	Population Number (millions)	% relation population on water supplies	F 0.5 mg/l identified comms.	Population using F natural (millions)		
Ecuador	5.8	0.98	32	2	0.009	0.9	1	0.0012	0.0010	1
El Salvador	3.3	1.4	43	1	0.096	6.9	17	0.080	0.18	13.0
Grenada	0.1	0.078	13	0	0	0	-	-	-	-
Guatemala	4.9	1.8	36	0	0	0	-	-	-	-
Guyana	0.71	0.39	54	0	0	0	8	0.025	0.025	6.4
Haiti	4.7	0.30	6	0	0	0	-	-	-	-
Honduras (BR)	0.12	0.013	12	0	0	0	-	-	-	-
Honduras	2.4	0.79	32	0	0	0	-	-	-	-
Jamaica	1.9	1.5	78	0	0	0	2	-	-	-
Mexico	47.9	25.0	52	4	0.25	1.0	20	1.5	1.75	7.0
Netherlands Isl. Curacao & Aruba	0.204	-	-	2	*	-	-	-	*	-
Nicaragua	1.8	0.7	39	0	0	0	1	0.29	0.29	41
Panama	1.37	0.71	52	8	0.51	72	-	-	0.51	72
Paraguay	2.23	0.22	10	1	0.22	100	-	-	0.22	100
Peru	12.3	3.7	30	0	0	0	-	-	-	-
Surinam	-	-	-	-	-	-	-	-	-	-
Trin. & Tobago	1.02	0.97	95	0	0	0	-	-	-	-
Uruguay	3.0	2.1	59	0	0	0	55	0.12	0.12	5.6
Venezuela	9.8	8.4	86	22	0.065	0.8	-	-	0.065	0.8

*Netherlands Antilles - Curacao and Aruba both have fluoridated water systems; population served has not been identified.

Source: Data reported by countries to the Pan American Health Organization in a census conducted in 1968, or presented by Representatives of Countries.

TABLE II

NUMBER OF COMMUNITIES AND POPULATION IN THE AMERICAS SERVED

BY WATER SUPPLIES WITH CONTROLLED FLUORIDATION

January 1, 1968

COUNTRY OR TERRITORY [a]	NUMBER OF COMMUNITIES	POPULATION SERVED - MILLIONS -	PERCENTAGE OF POPULATION SERVED BY WATER SUPS.
United States*	3,827	71.92	46.2
Canada**	315	6.07	42
Chile	62	3.04	52
Brazil	86	2.5	10.3
Colombia	5	1.15	8.7
Panama	8	0.51	72
Mexico	4	0.25	1.0
Paraguay	1	0.22	100
El Salvador	1	0.096	6.9
Venezuela	22	0.065	0.8
Ecuador	2	0.009	0.9
Netherlands Antilles	2	***	***
Total	4,335	85.670	39.8

[a] In descending order of population served

* Data supplied by Division of Dental Health, U.S. Public Health Service

** Data supplied by Canadian Dental Association

*** Not reported

TABLE III

PROGRESS OF CONTROLLED FLUORIDATION IN LATIN AMERICA

1961 - 68*

COUNTRY OR TERRITORY	NUMBER OF CITIES WITH WATER FLUORIDATION		
	1961	1963	1968
Brazil	23	69	86
Chile	24	27	62
Colombia	7	7	5
Ecuador	2	2	2
El Salvador	1	1	1
Guatemala	1	1	--
Mexico	-	5	4
Panama	1	2	8
Paraguay	1	1	1
Peru	1	1	--
Venezuela	1	-	22
Netherlands Ants.	--	--	2
TOTAL	62	116	193

*Information provided by countries to the Pan American Health Organization

TABLE IV

SUGGESTED GOALS AND ESTIMATED EXPENDITURES FOR FLUORIDATION IN LATIN AMERICA BY 1971*

COUNTRY	Estimated total population 1971 (millions)	Charter goal 1971 70% urban - 50% rural population on water supplies (millions)	Fluoridation goal 1971 Per cent of charter	Increase in population served with fluoridated water from 1968 (millions)	Estimated **additional annual cost when goal achieved (U.S. dollars)
Argentina	24.60	15.9	30	2.97	237,600
Barbados	0.27	0.15	25	0.0375	3,000
Bolivia	5.07	1.01	25	0.252	20,160
Brazil	95.90	58.8	20	9.24	739,200
Chile	9.85	6.27	70	1.089	87,120
Colombia	21.80	13.14	30	2.792	223,360
Costa Rica	1.87	1.13	30	0.339	26,120
Cuba	8.80	5.49	40	2.196	175,680
Dominican Republic	4.46	2.58	20	0.516	41,280
Ecuador	6.38	3.69	40	1.475	118,000
El Salvador	3.78	2.13	40	0.672	53,760
Guatemala	5.15	2.92	40	1.168	93,440
Guyana	0.74	0.41	20	0.057	4,560
Haiti	5.05	2.66	20	0.532	42,560
Honduras	2.72	1.52	20	0.304	24,320
Jamaica	2.07	1.17	20	0.234	18,720
Mexico	54.00	32.70	20	4.79	383,200
Nicaragua	1.87	1.09	40	0.146	11,680
Panama	1.51	0.9	80	0.21	16,800
Paraguay	2.46	1.4	75	0.83	66,400
Peru	13.06	7.75	30	2.325	186,000

.../...

TABLE IV (cont.)

COUNTRY	Estimated total population 1971 (millions)	Charter goal 1971 70% urban - 50% rural population on water supplies (millions)	Fluoridation goal 1971 Per cent of charter	Increase in population served with fluoridated water from 1968 (millions)	Estimated **additional annual cost when goal achieved (U.S. dollars)
Trinidad & Tobago	1.15	0.65	40	0.260	20,800
Uruguay	2.89	1.92	40	0.648	51,840
Surinam	--	--	--	--	--
Venezuela	10.95	6.93	40	2.707	215,560

* Arbitrary fluoridation goal established taking into consideration programs prior to 1968 and estimated potential

** Costs estimated at 8 cents/capita/annum. It is not envisaged that such costs would be attributable to direct Government expenditure except in those countries where water treatment is a government cost

RESOLUTION XIII

PROPOSED CRITERIA FOR THE PROGRAMS OF THE PAN AMERICAN HEALTH ORGANIZATION

1. At its 61st Meeting, the Executive Committee of the Pan American Health Organization adopted:

"RESOLUTION XIII

PROPOSED CRITERIA FOR THE PROGRAMS OF THE PAN AMERICAN HEALTH ORGANIZATION

THE EXECUTIVE COMMITTEE,

Seeing that the projects and programs of the Organization should always have well-defined goals to be achieved within specified time periods;

Noting that many programs included in the preliminary draft of the budget estimates of the Organization have been in operation for some time; and

Noting that it is essential to establish criteria that will enable the Governments and the Organization to evaluate the usefulness of the programs in which they are collaborating,

RESOLVES:

To request the Directing Council to instruct the Director to prepare a report, if necessary with the assistance of consultants, to be examined by the 64th Meeting of the Executive Committee, containing criteria for ensuring that all projects are given specified targets and are established for specified periods and have built into them a system of evaluation to ensure that they are discontinued when no longer necessary."

2. In order that the Directing Council may have the fullest possible background information for considering this resolution, the Director has the honor to supply the following data.

3. During the discussions on the Budget at the XIV Meeting of the Directing Council in 1963, the Director was requested to make an analysis of a sample of the oldest projects appearing in the Budget. In response to this request a report was prepared on the 26 projects which had begun in 1952 or earlier and which still appeared in the Budget. After discussing this report the Executive Committee at its 50th Meeting in April 1964 passed the following:

RESOLUTION IV

"THE EXECUTIVE COMMITTEE,

Having considered the report of the Director on the program review of a sample of long-term projects of the Organization,

RESOLVES:

1. To take note of the report of the Director and to express its satisfaction with the general progress of the projects covered by the review.

2. To congratulate the Director and the staff of the Bureau on the analysis and the report."

4. It was against this background that in September 1964 the Directing Council at its XV Annual Meeting passed the Resolution XIII, which reads as follows:

"THE DIRECTING COUNCIL,

Having examined the report of the Director on the program review of a sample of long-term projects of the Organization; and

Considering Resolution IV of the 50th Meeting of the Executive Committee and the discussions held by the Committee on this subject,

RESOLVES:

1. To take note of the report of the Director on the review of the program of the Organization and to express its satisfaction with the general progress of the projects covered by the review.

2. To request the Director to continue the evaluation of the Organization's program, to extend it to all country projects in which the Organization cooperates, and to make a continuing review of the project activities in all stages of their development."

5. They include an examination of the difference between programs and projects, information on the time during which the "Country Projects" included in the budget for 1969 have been in operation (Page 41), an analysis of how projects come into being, and a discussion of the elements contained in a plan of operations. The history of evaluation within the Organization is briefly sketched, the aspects of evaluation which are of concern to the health administrator are defined, a description is given of the instructions now in force for applying the evaluation process to the projects being conducted by governments in cooperation with the Bureau, and the results for 1968 are discussed. Mention is then made of initiatives taken by the United Nations Economic and Social Council and by the Executive Board of the World Health Organization with a view to improving and strengthening evaluation procedures, the lack of appropriate methodologies is pointed out, and the possiblity of introducing refinements in the system applied by the Pan American Health Organization is raised.

6. It would be well to begin by considering the difference between a program and a project. By "project" is understood an activity or set of activities designed to attain a specific purpose within a given time and area: for example, Smallpox Eradication in Colombia (Colombia-0300), or Health Services in North-Eastern Brazil (Brazil-3101), or Continuing Medical Education in Mexico (Mexico-3105). By "program" is understood the entire set of activities of one and the same type in a country, zone or region: for example, Environmental Health Program in Costa Rica, or Maternal and Child Health Program of the Region of the Americas, or Tuberculosis Control in Zone VI. "Program" may also mean the whole range of activities of various types being developed in a country, zone or region and in that case referred to as the health program for that country, zone or region.

7. It is important to realize this difference because the purpose of evaluation is not the same in the two cases. Evaluation of programs is generally for the purpose of determining how far the requirements of a given health field have been taken into account and how much progress has been achieved in that field, using as a basis for comparison general or specific objectives fixed in advance, as in the case of the Charter of Punta del Este and its goals. The study of the results obtained leads, or may lead, to a reformulation of the plan. The purpose of evaluation of projects is somewhat different and will be better understood when the nature of technical cooperation projects is analyzed. They represent an attempt to achieve total or partial solution of a problem through the attainment of a number of clearly defined objectives. Evaluation is aimed at measuring to what degree those objectives have been obtained and hence to what degree the problem which gave rise to the project has been solved. On the findings of this evaluation will depend the readjustments applied, including the extension or termination of the project.

8. The programs of the Organization are based on the health programs of the governments and on the regional health policy established by the Governing Bodies of the Organization at their periodic meetings.

9. On this basis, and taking into account specific "problem areas", the representatives of the Organization initiate discussions with the competent authorities in the country in order to determine the feasibility of implementing specific projects. These projects will be carried out by the Government, with the cooperation of the Organization, as an integral part of a national program.

10. Once agreement has been reached in principle to carry out a project, and when both the Government and the Organization have considered the extent of the resources that will have to be brought into play, an agreement or plan of operations is prepared for the signature of the participants. Sometimes, in addition to the Organization, the document is signed by other bodies such as FAO, UNICEF, a foundation, etc.

11. The agreement or plan of operations always contains, inter alia, the following features:

a) Description of the problem that gave rise to the project;

b) The purpose and objectives;

c) The plan of action;

d) The assignment of responsibilities;

e) The commitments of each of the parties;

f) The dates of commencement and termination of the project; and

g) A special clause making evaluation of the project mandatory.

12. The periodical reports on projects contain appraisals of the conduct of activities and the degree of accomplishment of the objectives set. For some years past the Annual Report of the Director has contained in its introduction a general conspectus reviewing and assessing the development of the numerous programs being conducted by the governments in cooperation with the Organization. In the same report, in the chapter devoted to projects, both those at present in operation and those being terminated are analyzed, with an indication of the objectives and of the work accomplished.

13. The malaria eradication campaigns are periodically evaluated by groups of experts specially designated for the task. Their reports result in important changes in the orientation of the activities and sometimes in radical alteration in the techniques and procedures in use. Evaluation techniques have been introduced into the programs for smallpox eradication and for control of some of the communicable diseases.

14. Our colleagues in the nutrition field have developed a very comprehensive procedure for evaluation of the applied nutrition programs. In the 1966 Seminar in Popayan, Colombia, the basis of the system was laid down and a number of indices were suggested for measuring change in the field of nutrition and the achievements of the objectives of these programs in the sectors of health, education, and agriculture.

15. For the purpose of developing a procedure that could be applied to all projects, an Office of Evaluation and Reports was created some years ago in our Central Office. The efforts of Dr. Drobny and his group led to the setting up of a simple system of evaluation using an evaluation sheet. This had the merit, among other things, of creating an environment which fostered the concept that systematic project evaluation is indispensable if we are to make full use of the varied experience that we derive from the field.

16. A revised version of the basic principles of project evaluation appeared in the WHO Manual about two years ago. The Manual now requires, on the one hand, a quantitative and qualitative appraisal of the achievement of each project in relation to its objectives, and on the other, an assessment of the degree to which the different programs of the Organization are developing in accordance with needs and policies. It places particular emphasis on the description of the impact of each project (a) within its specific field; (b) on public health in general; and (c) in the socio-economic sphere.

17. At the meeting of the Chiefs of Zone and Professional Staff of the Central Office that was held in February 1968, the Director placed special emphasis upon the subject of evaluation, assigning to it a three-fold dimension: an evaluation of regional character using the objectives of the Charter of Punta del Este as a basis of comparison; another of a functional character related to the various programs that appear in our program budget; the third, of a local character, being evaluation of the projects in which we are cooperating with the Governments.

18. Once they have defined a health problem, if the national authorities consider that it should be tackled with the cooperation of the Organization, there begins the administrative and technical process of project preparation. At the very moment of commencement of this process it is necessary to lay the foundation that will facilitate the systematic evaluation of the project. As the term "evaluation" may cover everything from the most rudimentary to the most meticulously executed appraisals, it is necessary first to determine what is to be evaluated and for what purpose.

19. It is generally accepted that in project evaluation there are four questions of particular interest to the health administrator:

a) Whether the project deals with a problem that commands priority in the community;

b) Whether the objectives specify clearly what portion of the problem it is expected to solve and in what depth;

c) Whether the predetermined project objectives are being accomplished;

d) Whether the project objectives are being attained within the estimated costs.

The first two questions are an integral part of the planning stage of the project and should logically be considered before operations begin. Questions (c) and (d), on the other hand, can be evaluated during or after the operation of the project.

20. As we might expect, the procedures that are employed in each of these four aspects of evaluation are different.

21. The decision as to what importance will be attributed to the original problem, that is to say, whether the project will even be formulated, will be based on the study of the priorities that emerge from the diagnosis of the health situation. The administrator will use the method of his choice for determining priorities, taking into account all the technical, socio-economic, and political factors involved.

22. If it is decided to implement the project because it deals with a problem that is judged to have priority, it is necessary to define clearly its purpose and indicate precisely whether the problem will be tackled wholly or partially and in what depth. (The projects in which the Organization is cooperating in the countries do not as a rule seek to solve the whole of a health problem.) Limitations of resources will frequently necessitate a change in the purpose of a project, a change which may affect the number of objectives that it is proposed to attain, the extent of the area to be covered, the number of persons to be benefitted or the period within which it is expected to attain the objectives, The whole situation will have to be carefully analyzed, and this assessment will determine whether the project is adequate and will be implemented or will simply be abandoned, because it would not serve a useful purpose. Immunization programs and others in which the effective level is known are good examples of the need for this aspect of project evaluation. As we said before, this question, like the preceding one, has to be analyzed during the planning stage of the project. No doubt this can be done at a late stage, and sometimes at the end of the project, but in that case it amounts to a postmortem on a situation which can no longer be corrected.

23. If what we seek is an over-all evaluation of the performance of a project, it is necessary to answer the two last questions mentioned in paragraph 19, that is to say, to determine whether the predetermined objectives are being attained - this we may call evaluation of "effectiveness", and whether the objectives are being attained within the estimated costs - this we may term evaluation of "efficiency". Both types of evaluation are feasible as long as the three following requirements have been fulfilled:

a) The objectives have been clearly defined quantitatively and qualitatively and in terms of time, place, and coverage.

b) The activities that will be carried out for the achievement of the objectives are described and recorded adequately and in sufficient detail.

c) The resources assigned to the project have been clearly identified.

24. Recognizing the serious difficulties that would be encountered in trying to identify precisely the resources assigned to each project, we have decided to set aside for the time being the measurement of "efficiency", an entity which may be expressed as the ratio of the objectives achieved to the resources actually used or AO:AR. Thus we shall deal exclusively with the evaluation of "effectiveness", defining this term as the determination of the degree of accomplishment of planned objectives, AO:PO ratio of achieved objectives to planned objectives. This ratio will be complemented by the ratio of completion of planned activities, AA:PA or ratio of activities actually carried out to planned activities. As soon as we are sure that the evaluation of "effectiveness" of projects is being generally applied, we shall immediately tackle the evaluation of "efficiency". In any case, in order that "efficiency" can be judiciously appraised it is essential first to know the "effectiveness" of a project.

25. With a view to putting into practice this evaluation of the "effectiveness" of projects, in April 1968 a "Working Paper on Evaluation" (Page 43) was prepared, explaining in detail the procedure to be followed. On the basis of this document and of the comments put forward in the course of discussions with field and headquarters staff, the "General Instructions for Project Evaluation" (Page 65) were put into force on 8 July 1968.

26. According to these instructions, all projects in operation were to be reviewed and for each of them a "Basic Document" was to be prepared containing the following information:

a) Description of the problem that gave rise to the project and description of the base line situation, using general indices, or indices specifically related to the problem (Pages 51 and 52).

b) Definition of the purpose or purposes of the project (Page 53).

c) Definition of the objectives (Pages 47, 53, and 54). It is particularly stressed that in the definition of the objectives the following criteria must be taken into account: the condition or environment that it is hoped to attain; the population that will be benefiting; the geographical area covered; and the time period within which the objective is expected to be obtained.

d) A description of the final activities that must be performed in order to attain each of the objectives (Page 54).

e) Selection of the indices to be used for measuring the changes produced and/or the degree of accomplishment of the objectives and activities of the project (Page 56).

To supplement the Basic Document, those responsible for each project were to:

a) Set the annual targets for the activities to be carried out (Page 58);

b) Keep a record of the activities carried out (Page 58); and

c) Prepare the Evaluation Sheets at the end of the current year on the appropriate forms (Page 58).

27. The same instructions are applicable to all projects recently started, and in them particular emphasis is placed on the fact that, both in the preparation of the Basic Document for each project and in setting the annual targets, the fullest possible participation must be obtained from national counterparts, since we are dealing with activities developed by the Government in which the Organization is collaborating in an advisory capacity.

28. The results of the project evaluation (Pages 59 and 60) conducted according to the above-described procedure are utilized at the different operational levels as follows:

a) The staff members in charge of the projects will carefully analyze these results and make the necessary adjustments to the annual targets, or to the objectives, or to both.

b) The Country Representatives, responsible for the overall operation of the projects in the areas of their jurisdiction, will use the evaluation to reorient the programs should it be necessary, proposing the elimination or extension of projects where justified.

c) The Zone Chiefs and their advisors will conduct an analysis of the progress of the projects and of the factors influencing their development, thus exercising more effectively their technical supervisory functions.

d) The departments of the Central Office will take steps to ensure that the evaluation documents contain all the technical information they require; that each project is properly analyzed; and, lastly, will provide the technical criteria for the evaluation of the projects coming within fields of competence.

29. At the Annual Meeting of Zone Chiefs with the Director and professional staff of the Washington Bureau, held in March 1969, an outline of the evaluation work carried out was presented, the results obtained in 1968 in the application of the procedure were analyzed, and the main tasks to be performed in the immediate and long-term future in order to perfect the evaluation process were enumerated.

30. The findings of this preliminary analysis, later modified to take account of the receipt of a larger number of documents, were as follows:

a) The number of projects for which a Basic Document and/or Evaluation Sheets were submitted amounted to 72 per cent.

b) Those to which the evaluation procedure were satisfactorily applied represented 30 per cent.

c) The commonest defect in the evaluation documents received is an insufficiently clear definition of the objectives of a project.

d) As a result of this last fact in particular, it was found that just over half of all the documents examined were inadequate for the evaluation of the objectives attained.

e) It is noteworthy that in 60 per cent of the projects on which reports were supplied a conscientious effort has been made to reach an overall assessment of their impact, not only in their specific field and in that of public health, but also in the socio-economic field.

31. Meanwhile, the Economic and Social Council, in its Resolution 1364, (XLV) of 2 August 1968, requested the Secretary-General of the United Nations, in consulation with the Administrator of the United Nations Development Program and the directors of the other organizations within the United Nations system, to prepare a document describing the main policy features

and also the practical problems that have arisen as a result of the efforts of the international organizations to evaluate technical cooperation projects and programs, at the same time including in this document appropriate conclusions and recommendations for the development of a program for evaluation of technical cooperation with the United Nations system, with a view to facilitating the attainment of the objectives of the Second United Nations Development Decade.

32. In March 1969, the Administrative Committee on Coordination of the United Nations prepared an extensive and very comprehensive report on the evaluation of technical cooperation projects and programs. This document (E/4668/Add. I) contains a general examination of the problems inherent in the rationalization of evaluation activities, an analysis of the purposes and methods of evaluation and the collection and use of information, a discussion of the problem of finding evaluators, recommendations for future studies in this field, and an outline of what the United Nations organizations are at present doing in the field of evaluation.

33. At its 43rd session, in February 1969, the Executive Board of the World Health Organization considered and discussed the report of the Director-General entitled "Proposals for Further Improvement and Strengthening of the Evaluation Process of the World Health Organization" (EB43/34). The proposals of the Director-General, approved by the Board in Resolution EB43.R19, emphasize the role of evaluation in long-term planning within the Organization and call for further refinement in the definition of goals, criteria and standards established in plans of operation, as well as in the reporting systems. At the country level the proposals recommend that continuous evaluation of WHO assisted activities, as part of the total health program of the country, should be further encouraged. This evaluation should be performed by the national health authorities, with the assistance of WHO whenever requested. Health program evaluation in a country should include a review of the national health situation and identification of the priority problems and objectives; the establishment of guiding principles for program development and execution; technical assistance coordination; and an evaluation of overall progress so as to reformulate the program in the light of experience. At the regional level, the proposals stress the increasingly important role of the Regional Offices in supervision, based on the evaluation of WHO-assisted projects within the context of the national and regional health programs. At the General Headquarters level, the proposals lay stress on the need for continued efforts in the field of research on evaluation methodology and the training of personnel in methods of evaluation.

34. The need for evaluation is unquestionable. The problem is that there exists no methodology which meets all the purposes of evaluation in the various sectors and subsectors of development. Within the field of public health, programs and projects differ among themselves, and while it is

relatively simple to apply a given method to projects of the same type, it is difficult to devise a single methodology applicable to all cases. Nevertheless, allowing for the differences, we believe that the procedure we are using is going to bear fruit. It includes all the factors necessary for determining the degree of attainment of the objectives, always provided that the various elements are defined with the necessary clarity. The essential point to be borne in mind is that evaluation constitutes part of a process and that its findings must be utilized at the different operational levels. Otherwise it would be merely an academic exercise, devoid of practical significance and usefulness.

35. We do not wish to imply that there is no need to refine the procedure or explore other avenues. On the contrary, we believe that in such a complex subject, with so many variables, in many cases difficult to verify, any experience the Organization can obtain has a very valuable contribution to make. We consider, furthermore, that the process of evaluating projects and programs can be instituted and perfected only with the active participation of all the staff members, both national and international, who are working upon them.

COUNTRY PROJECTS

YEARS OF OPERATION UP TO 1969. BY ZONES AND TOTAL*

	Zone I		Zone II		Zone III		Zone IV		Zone V		Zone VI		Total	
NUMBER OF PROJECTS IN 1969	72		58		77		89		47		97		440	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
PROJECTS IN OPERATION FOR 1 to 5 YEARS	45	62.5	31	54.4	44	57.1	56	62.9	22	46.8	62	63.9	260	59.3
PROJECTS IN OPERATION FOR 6 to 10 YEARS	21	29.2	9	14.0	18	23.4	16	18.0	20	42.5	23	23.7	107	24.1
Education and training	5		3		5		6		10		10		39	36.0
Water supplies	5		2		7		3		1		4		22	20.6
Health services	2				2		1		2		2		9	8.5
Control of communicable diseases	1		2		1		5		1		3		13	12.3
Nutrition	1		2		3				2				8	7.5
Nursing services									1				1	.9
Miscellaneous	7						1		3		4		15	14.2
PROJECTS IN OPERATION FOR 11 YEARS AND OVER	6	8.3	18	31.6	15	19.5	17	19.1	5	10.7	12	12.4	73	16.6
Malaria eradication	1		4		7		4		1		2		19	26.0
Health services			3		4		5				3		15	20.5
Fellowships			1		3		2				4		10	13.7
Schools of public health	1		1				1		1		1		5	6.8
Yellow-fever vaccine production							1		1				2	2.7
Nursing education	1		2		1		2				1		7	9.6
Aedes aegypti eradication	2		1				1						4	5.5
Smallpox eradication									1				1	1.4
Tuberculosis control			1								1		2	2.7
Water supplies							1						1	1.4
Rabies control									1				1	1.4
National Institute of Hygiene	1		1										2	2.7
Medical education			1										1	1.4
Veterinary medical education			1										1	1.4
Sanitary engineering education			1										1	1.4
Yaws eradication			1										1	1.4

*Not including the United States of America or Canada.

PAN AMERICAN HEALTH ORGANIZATION

Pan American Sanitary Bureau, Regional Office of the

WORLD HEALTH ORGANIZATION

WORKING PAPER ON EVALUATION

The Department of Evaluation has prepared this document to serve as a basis for discussion with our colleagues in Washington and in the field. It has been prepared for the purpose of examining some of the principles of evaluation and their practical application to our work, bearing in mind what is stated in the WHO Manual and the Director's aim of making evaluation an integral part of the work of the Organization.

We shall welcome comments and suggestions so as to make the document a really useful guide for all our colleagues.

Washington, D. C.
15 May 1968
(Revised, October 1968)

CONTENTS

PART I

1. Introduction

1.1 In his recent address at the Meeting of Chiefs of Zone and Senior Staff the Director once again stressed the importance of evaluation in the work of our Organization. He made a plea for us to become "measure-minded." At the close of the meeting he stated that he expected the principle of evaluation to be applied to 100 percent of our projects. These statements of policy have a far-reaching significance for our Organization and every member of our staff.

1.2 The evaluation system of WHO is set out in Part X of the Manual, where our colleagues will find an account (dated 15 June 1967) of its nature, method, and scope. The Manual places upon the Director the responsibility, among other things, of:

a) Ensuring that evaluation is made of project activities in his Region, at project, country, and regional levels;

b) Briefing regional advisers, country and project staff and short-term consultants on evaluation and its inclusion in reports.

1.3 The purpose of this paper is to re-examine, in the light of the Director's remarks and also what is stated in the WHO Manual, some of the basic principles of evaluation and their practical application to our work. We would like to stress that the paper is presented only as a basis for discussion with our colleagues in Washington and in the field. It is not intended to be a final statement of policy. We would welcome the comments and suggestions of our colleagues.

1.4 Evaluation in health work is as difficult as it is important. A very considerable effort has been made in recent years, both in our Central Office and in the field, to put it on a sound footing. In spite of this effort, evaluation of our projects is still incomplete in coverage and imperfect in quality. In a recent review of Evaluation Sheets for 1967 we have arrived at the estimate that in only 5% of the Projects had Evaluation Sheets been prepared in accordance with the Organization's instructions.

1.5 It seems essential that evaluation should be placed upon what Dr. Drobny has called an "organized (and) inescapable" basis because the work requires careful thought, it is time-consuming, and there is a constant tendency for day-to-day work to interfere with it. This does not mean that evaluation is to be a separate, isolated exercise. On the contrary, it will be an integral part of the work of all our colleagues in all the projects, incorporated in all project reports.

2. Evaluation, Planning, and Management

Evaluation is an indispensable tool of good management in an Organization like ours. By means of systematic evaluation it is possible to measure the degree of accomplishment of the objectives of our projects; the priority of the problems that these projects are attempting to solve; and the efficiency and effectiveness of the methods adopted for their solution. Thus evaluation contributes to better planning based upon accumulated experience and also provides management with the information necessary to determine policies and priorities and the assignment and re-assignment of resources.

3. Definition of Evaluation

There have been many definitions of evaluation. We ourselves, taking account of the basic principle that every activity has an objective which can be stated and evidence of progress towards its achievement precisely measured, have adopted the following: "Evaluation is the systematic measurement of change, if any, within a specified time, as a result of effort made to reach a predetermined goal."

4. Components of Evaluation

4.1 In the light of the above definition we can identify a number of distinct components in the process of evaluation:

- Baseline.
- Purpose, objectives, and activities.
- Measurement of change.
- Determination of cause of change.
- Consequential modification of plan or procedure.

It is appropriate to discuss under this general heading the indices that are to be used for measurement. But first let us examine some of these components in greater detail.

4.2 Firstly, let us discuss the baseline. This is the initial statement of the problem in quantitative terms, such as mortality and morbidity and resources and demands, but more specifically the situation within the field covered by the particular project. This is the essential first stage of evaluation. In describing the baseline one takes careful account of the need for subsequent measurement of change and uses the same indices that are to be used in the later stages of evaluation. There should be visible a clear relationship between this description of the problem and the subsequent definition of objectives, since the aim must be to solve or ameliorate the problem as recognized. In our Plans of Operations the corresponding chapter is usually called Basic Information. There has been much misunderstanding of the real purpose of this chapter, which is twofold: firstly, to explain and justify the project; secondly, to

facilitate subsequent evaluation. Therefore, no useful purpose is served by assembling under this heading a comprehensive but useless mass of information. Examples of the correct preparation of the baseline will be given in the second part of this paper.

4.3 Purpose, Objectives, and Activities

These three components are frequently confused in our Plans of Operations and in our Reports, and yet they are easily distinguishable. By purpose we mean the state or condition of the population or the environment which it is intended ultimately to achieve by means of the objectives and activities of a project. Except in the simplest projects, achievement of the purpose requires the prior attainment of a number of intermediate stages or objectives, for example, protection of the population and training of the staff. The purpose is the sum total of the objectives and the former may therefore appropriately be defined as the "ultimate objective" and the latter as the "partial" or "intermediate objective." The activities, on the other hand, are the individual actions necessary to ensure the achievement of each objective. To sum up: each project has an over-all purpose; various intermediate objectives, the total achievement of which would ensure the achievement of the purpose: and the activities necessary for the attainment of the objectives.

As has already been stated, the purpose and objectives are situations or conditions of persons or their environment and for this reason should be defined in our documents by means of nouns; on the other hand, the activities, which represent action, should be described with verbs. For example, the purpose of a given project might be the eradication of smallpox in country X; the objectives might be the immunization of 90% of the population of the whole country within the period 1969-1971, the production of one million doses of lyophilized vaccine in 1969, the training of two medical officers and 20 auxiliaries by June 1969, and the setting up in 1969 of a system for the early diagnosis of cases; and the activities might be to vaccinate two million persons, set up a laboratory, organise an eight-hour course of instruction, collect specimens from suspected cases of smallpox, etc.

4.4 We must emphasize the need for clear definition of objectives in order to be able to select the appropriate activities and also to be able to measure achievement. The difficulty of evaluating some of our projects is due only to the vagueness of the original objectives. The successful measurement of accomplishment can never be more precise than the stated objectives and the clarity of the objectives is itself dependent upon the degree of definition of the basic information. So important is this question of clear definition of objectives that it is necessary in many projects to select carefully for the evaluation sheet those objectives that are readily measurable, leaving the others to be described in the narrative part of the report.

Five criteria should be applied to a given objective in order to determine whether it is adequately defined to permit subsequent evaluation. These criteria are as follows:

- Is there a clear definition of the specific condition of people or the environment that is to be attained?

- Is there a clear specification of the particular group of people or portion of the environment in which the objective is to be attained?

- Is there a clear specification of the geographical location of the program?

- Is there a clear statement of time period in which this degree of attainment is expected?

- Is there a clear statement of the degree or amount of intended attainment?

4.5 We have already pleaded for a clear distinction to be made between the objectives, which are the end point, and the activities, which lead up to this end point. We would also like to mention the cause-effect relationship that should always exist between the activities on the one hand and the objectives on the other, a relationship which should be more clearly brought out in our Evaluation Sheets. A third important point in the description of activities is the time relationship; it is necessary to be specific and especially to include in a plan of action a schedule showing the distribution of activities year by year and thus have annual targets.

In the field of Health Planning, activities are divided into three groups, and this is a classification which seems to us to be of great practical value. Our planning colleagues distinguish final activities, which by themselves are able to secure the achievement of an objective, for example, hospitalization, vaccination, medical consultation; intermediate activities, which have an auxiliary rather a direct role, for example, laboratory and X-Ray examination; and general activities, which provide the necessary direction and support for the other types of activity, for example, management, supplies, and transportation.

4.6 In our projects it would sometimes be difficult to determine the cause of the observed change, that is to say, whether it is due to project activity or some other factor. The normal scientific way of doing this would be to set up a control group, namely, one that is similar to the observed group in every way except that no project is conducted in the control. In its purest form this procedure will be impracticable for the majority of our projects. Nevertheless it will frequently be possible to make useful comparisons with neighboring communities that are not the subject of similar projects.

4.7 Indices

In his recent address the Director mentioned that three levels of evaluation fall within the purview of the Bureau: firstly, the measurement of progress towards the objectives established at Punta del Este; secondly, evaluation of our general programs, for example, nutrition, tuberculosis control, sanitation, etc., and thirdly, the assessment of our individual field projects. It is possible to classify health indices into three broad groups roughly corresponding to these levels of evaluation.

We cannot disregard the traditional health indicators. One of their uses is to measure the general health situation of the human community. Dr. Atilio Machiavello has said that "Man is the common denominator of all human values and it is in accordance with human values that all other values are assessed and their priority determined." On the other hand, we have to recognize that the traditional indicators are not always directly related to health activities and no one knows precisely the types of health activity that are necessary, for example, to increase life expectancy in a given age group or to reduce general or infant mortality by a given number of units. In other words, while we may continue to use the traditional indicators, we should recognize their limitations as operational indicators.

In the course of preparing the Quadrennial Projection our staff in the field have prepared indices for use in such fields as epidemiology, nutrition, and environmental sanitation. In accordance with the principles set out in the WHO Manual, we see the further development and refinement of these indices as a function of the technical departments in our Central Office working in close cooperation with the Department of Evaluation.

However, it is the individual Project Officer in the field who will have a large part of the responsibility of adapting these indices and devising new ones; in this exercise he must bear in mind the needs of his particular project and especially its objectives and the activities he has designed to achieve these objectives.

The ideal index is one which:

- Is objective; that is to say, it gives the same results even when used by different people at different times;
- Is valid; that is to say, it is a direct measure of the situation or condition stated in the objectives;
- Costs little to use, and
- Is easy to apply.

5. Evaluation Impact

The WHO Manual identifies three distinct fields in which a project may make an impact: specific, public health, and socio-economic. Within the specific impact of a project we ourselves would like to refer to its influence on the organizational and administrative structure and urge particular attention to this aspect. The Manual recognizes the difficulty of identifying the socio-economic impact of a project but nevertheless requires that it should be systematically sought and recorded. We take account of these principles in formulating in the last section of this paper certain proposals for immediate action.

6. Advantages of a Systematic Approach to Evaluation

The chief advantage of a systematic approach to evaluation is that it provides the Organization and its staff members with a rational basis for changing policies and priorities and thus for reallocating resources; but there are other advantages in such an approach.

- It furnishes knowledge about the effectiveness of effort in achieving objectives.
- It provides detailed information as to the exact parts of a program which may be ineffective.
- It provides data on the extent to which changes are due to program activities rather than to other factors.*
- It provides data that are objective, valid, and reliable.

7. Functions of the Department of Evaluation

We have seen that evaluation is an integral part of the work of every staff member. It seems to us that the main work of the Department of Evaluation is:

- To work out a system of evaluation which can be used at the various levels defined by the Director.
- To ensure that this system of evaluation is applied to all projects.
- To cooperate with our specialist colleagues in devising indices that meet the criteria set at 4.7.
- To stimulate national health authorities to evaluate their own programs and to advise them on appropriate methods.

*Very difficult to assess.

PART II

8. Proposals for Immediate Action. Project Evaluation

In every project it is possible to identify at least three components, any one of which might be the subject of evaluation:

- The problem which originally led to the formulation of the program.
- The objectives adopted for the solution or control of the problem.
- The methods selected to attain these objectives.

The evaluation of the first component would enable us to assess the extent to which health problems had been correctly defined and priorities rationally determined. The evaluation of the third element would enable us to decide whether the methods selected to achieve the objectives were the most appropriate, for example, whether it was better to use intradermal or oral BCG; whether it was preferable to use the dermo-jet instead of multipressure; whether prenatal supervision was better when it consisted of 8 visits instead of 6, etc.

However, these are not the components that we propose to tackle at the present time. They may possibly be the subject of special studies, falling under the heading of operational research, which is not always possible in the course of systematic evaluation through reports.

We refer at the present time only to evaluation of the second component, that is to say, the objectives established to solve the problem or to bring it under control. To be more precise, we shall discuss the method of measuring the extent to which, during a given period, the purpose and objectives of a project have been achieved as a result of the planned activities.

With this in mind, we propose to consider a process consisting of three steps:

A. Preparation of the Basic Document of the Project

- Definition of the problem, including the basic information and using general and more especially specific indices.
- Definition of the purpose of the project.
- Definition of the objectives.

- Determination of the activities necessary to accomplish each one of the objectives.

- Selection of indices to measure the achievement of the objectives.

B. Preparation of the Evaluation Sheet

- Setting of the targets for the year.

- Recording of the activities accomplished during the period.

- Determination of the percentage of achievement of the targets.

- Appropriate remarks on the progress of the project.

- A brief statement of opinion on the project as a whole, including its impact.

C. Analysis of the Results

- Verification of the degree of achievement of objectives by using indices and percentages of accomplishment of activities.

- Determination of the extent to which a change in the level of health can be attributed to project activity.

Let us examine each of these steps in greater detail.

8.1 A. Preparation of the Basic Document of the Project

8.1.1 Definition of the problem.

In order to have a clear and precise definition of the purpose and objectives it is first necessary to consider the problem that give rise to the formulation of the project. Solely for the purposes of this discussion and in spite of its being already well known, let us recall that a health problem is a situation or condition which affects persons or their environment and which is considered undesirable by the health authorities of the community." Here are some examples of problems which illustrate this principle: there exist cases of smallpox, children are not taking adequate diets, the water source is exposed to contamination, a large part of the population lacks excreta disposal services, there is infestation with Aedes aegypti, there is little utilization by the community of its Maternal and Child Health Center, health conditions in the provinces of Norte and Arenas, where 22% of the population lives, are inferior to the national average, etc.

All the examples that we have just quoted illustrate the definition of the problem, but each must be further defined with the appropriate baseline information. This information is usually available and it is necessary only to seek and record it as we shall see later. So far as possible, it is necessary to use specific indices and thus establish at the very outset a basis for subsequent evaluation. Thus the problems mentioned above might be stated more precisely in the following form:

During 1967, 100 cases of smallpox were recorded in Campo Grande; 5% of infants and preschool children in Río Arenas have extreme protein-calorie malnutrition and 50% have this condition in mild or moderate degree; 65% of the people of Campo Grande lack potable water supplies and 80% lack sewage disposal; during 1967 Aedes aegypti was discovered in 25 houses in Pelarco and 50 houses in Victoria; at the Maternal and Child Health Center in Río Arenas attention was given to 20% of deliveries and 30% of infants; in the Provinces of Norte and Arenas the following information is recorded:

	Norte and Arenas	Country
General mortality	9%	8.5%
Deaths with medical care	30%	61%
Maternal deaths with medical care	40%	62%
Infant mortality	82%	65%
Fetal deaths with medical care	30%	69%

From among these indices those most useful for evaluation will subsequently be selected.

8.1.2 Definition of Purpose of the Project

The purpose of a project corresponds to the definition of the problem but is the very reverse. If the problem is the existence of smallpox, the purpose of the project is its eradication; if the problem is that the children in the community do not have adequate diets, the purpose will be that they do; if the problem is that the community has insufficient water and sewage disposal services, the purpose of the project is to ameliorate this situation, etc.

The purpose, as we have defined it, is sometimes known as the over-all or ultimate objective of the project. We must now define the partial or intermediate objectives, which we shall refer to simply as objectives.

8.1.3 Definition of the objectives

It has been stated that projects are prepared with the aim of solving problems or improving situations. Problems and projects vary greatly in the subjects with which they deal and in their magnitude.

The purpose of the project is that the problem will be eradicated or reduced, but to attain this it is necessary first to achieve a series of intermediate objectives. Sometimes it is enough to adopt a single objective which is identical with the purpose, but this is exceptional. Usually it is necessary to define a series of objectives, each one of which contributes to the attainment of the purpose of the project.

In order to measure the degree of attainment of these objectives--and this will ultimately enable us to determine the degree of accomplishment of the purposes--it is necessary to define objectives with precision. For example, in speaking of the malnutrition problem in a given community, we should give as the objective the reduction of the incidence of protein-calorie malnutrition by 10% each year; we must say that 80% of the population in Río Grande will have potable water supplies within a period of five years; that hospital care will be given to 80% of the deliveries in Playa Chica within a period of 3 years; that 90% of the nursing auxiliaries in hospitals in Horizonte will be given in-service training within a period of 4 years.

In defining the objectives (page 47), we have already stated that in order to make evaluation possible they need to meet certain criteria. It will often be difficult to apply all these criteria because of the wide range of situations that is encountered in our projects. But this fact should not prevent us from attempting to define our objectives with the greatest possible precision.

Too often we find objectives defined as follows: to strengthen the nutrition education activities, to improve the quality of medical education, to develop integrated public health services, to raise the level of nursing education, to vaccinate the population against smallpox, to control the quality of drinking water, to prepare physicians, to increase the coverage of medical care, etc. Practical experience confirms that assertions of this character do not facilitate useful project evaluation because they are imprecise and confuse objectives with activities.

It is essential to bear in mind that the objective is a state or a situation at which we arrive by means of planned activities. It is the end result. The activity is the action taken by the project staff in order to achieve this end result.

8.1.4 Determination of the Activities

The precise definition of activities is fundamental in the process of evaluation, because it is largely by determining the degree of achievement of activities that we propose to arrive at a definition of the extent of attainment of objectives.

Each activity is directed towards an objective, the attainment of which can be measured by the degree to which the activity is accomplished. In other words, if there is a clear

cause-effect relationship between activities and objectives it is possible to measure the degree of accomplishment of the latter simply by recording the activities.* In practice this is not so easy, because there are a series of activities which by themselves would not ensure the attainment of an objective but which are an important and sometimes indispensable unit in a group of actions which would result in the achievement of this objective. Let us take some examples. In a smallpox eradication project one of the objectives is the immunization of 90% of the population within a period of 2 years. In order to attain this objective it is necessary to develop a series of activities--administration, supplies, laboratory examinations, transport, vaccination. A superficial analysis shows that only the activity vaccination will result directly in the attainment of the objective, the others being merely a part of the process. Let us take an example in another field. In a maternal and child health project one of the objectives is the control of malnutrition in children under 5 years within the project area. We would have to develop a series of activities --administration, supplies, domiciliary visits, supplementary feeding, hospitalization, medical consultation, and others. Only hospitalization and medical consultations can be considered sufficient to attain the planned objective; the others have only a supporting function and their recording and analysis would not by themselves ensure effective evaluation.

An examination of the project shows that there are three types of activity: final, intermediate, and general. For the purposes of this paper, we may define as final activities the type of services performed in the final stage of the operation. Characteristically, they are the basic activities yielding the end product that is required for the program objective, for example, hospitalization, house spraying, consultation, vaccination. By intermediate activities we mean those which are a product of intermediate sectors and complement in varying degree the final activities. They do not contribute directly or independently to the achievement of the objective, except by virtue of their complementary relationship with the final activity; examples are: laboratory examinations, domiciliary visits, X-ray examinations, educational sessions, etc. General activities are those which, produced by the general sectors, provide logistic support and direction for other activities; examples are administration, supplies, transport.

To sum up: while it is possible to measure the effectiveness of final activities by virtue of their direct relationship with the achievement of an objective, the effectiveness of intermediate and general activities have to be measured by virtue of the support that they give to the final activity and the effectiveness of the latter.

*We should bear in mind the later definition of activities, which always include the components of quality and efficiency.

What we have stated above has an immediate practical application of exceptional importance for the determination of the activities of a project and the definition of the cause-effect relationship between activity and objective which we have already mentioned.

What is important is that in each type of project, for each objective, and with the participation of the appropriate specialist, we should list activities in terms of production, including final, intermediate, and general activities, judiciously combined in number as well as type in order to ensure effectiveness. Having completed this task, we are ready to carry out project evaluation by using the record of activities.

Now let us see how indices can be selected or devised to determine the degree of accomplishment of objectives.

8.1.5 Selecting or Devising Indices

In this paper we have already mentioned the importance of indices that facilitate more exact project evaluation. We also stated that the ideal index should be objective, valid, inexpensive, and easy to apply.

It is generally accepted that there are two types of health index: (a) general and (b) specific. Among the general indices are: (1) The proportional mortality, which is the ratio of deaths of persons of 50 years and over to total deaths (index of Swaroop and Uemura); (2) Expectation of life, preferably at 1 year of age and not at birth; (3) Crude death rate.

Among the specific indicators are: (1) The infant death rate; (2) Death rate from communicable diseases; (3) Indices related to health services such as the number and distribution of physicians and other health personnel, number of hospital beds, etc.

In addition there are many indices relating to the environment. In education we have: (1) Percentage of literacy in the population of 15 years and over; (2) Percentage of school-age children attending school; (3) Years of schooling. In housing we have: (1) Percentage of the population living in permanent houses; (2) Average number of persons per room; (3) Percentage of houses with water connections; (4) Percentage of houses with adequate excreta disposal. Other indices related to communications, economics, etc., are being used to an increasing extent in the social field.

We have already referred to the basic criteria that should be used in the selection of indices. We should perhaps add the quality of feasibility, in terms of the availability of data and their reliability.

The work of selecting and devising indices for evaluation holds out interesting possibilities for research. In order to find suitable indices studies are needed in the field of nutrition, morbidity, mental health, environmental factors, health services, social factors that influence health, economic impact of certain health programs, etc.

From the operational point of view, what we have said about the first step in the process of evaluation can be condensed on a simple form divided into four columns: The first contains the description of the problem and the basic information in figures; the second, the purpose and objectives; the third, the final, and some intermediate and general activities corresponding to each objective, preserving a numerical relationship between objectives and activities; and the fourth, the indices that will be used to measure the degree of attainment of each objective, and each activity, preserving the appropriate number in each case.

This form will be the basic working document of the project and will be used to work out the detailed plan of operations and the annual targets of activities which in their turn will serve as a point of reference to evaluate the progress achieved.

For certain projects, for example, organization and administration, education and medical care, this document may be long and difficult to prepare. If we take any of the 3100 Projects it is easy to see that it will be necessary to define more than one purpose and then to define objectives for each purpose and select activities for each objective. There are times when it will be necessary to define objectives at the national, intermediate, and local level, attempting to arrive at the greatest possible detail in each case.

It is an undeniable fact that, in one way or another, objectives and activities have been set for all projects and are serving as their basis of operation. A considerable volume of information about accomplishments is being received from the field on the Evaluation Sheets. What we are now trying to do is to give it a different arrangement that may clarify and facilitate the interpretation of what each activity really contributes to the achievement of the objectives.

Finally, we would like to emphasize that we are not promoting this exercise only because of the needs of evaluation; in fact, what is now proposed implies improved programing of projects pari passu with the formulation and implementation by each country of its national health plan. When this happens, when the priorities have been determined in accordance with technical criteria, when objectives have been defined in terms of the attainment of certain levels of health in the program

areas, when activities for tackling each problem have been clearly defined, when evaluation has been established as an integral part of the projects, we shall have reached a stage which seems to us as health administrators to be of cardinal importance.

8.2 B. Preparation of the Evaluation Sheet

For this part of the evaluation process we are using a form to be distributed by the Central Office. This form consists of a first page, in the upper part of which is shown the number and title of the project, the period of evaluation, the number and title of other contributing projects, i.e. AMRO projects, the name of the Adviser or Advisers, and the Country Representative.

There is a table of five columns, each one with its heading, and with footnotes about the method of filling it in.

The first column is for the Purpose and Objectives in the form set out in the Basic Document of the project, prepared in accordance with the procedure suggested earlier. Each objective should be numbered.

In the second column will be recorded the targets of activities for the year, beginning with the final activities. The selected intermediate and general activities will then be recorded. In setting the annual targets we should take into account the existing resources, human and material, and especially the level which it is expected to reach at the end of the year, bearing in mind the time available to achieve the objectives and the total duration of the project.

In recording the targets it is important to make sure that their numbering is identical with that of the corresponding activities.

Finally, we must emphasize that the targets relate to the activities of the projects, not to those of the Adviser.

The third column is intended for recording the activities carried out during the period in relation to each target. The achievements should be stated in the most concrete form possible and in words similar to those used for the target. If the latter is in figures the achievements should also be stated in figures. In some projects reliable data may be delayed and therefore it is important to note that the period for which data are assembled need not correspond exactly with the calendar year. Indicate under "Remarks" the period covered in each case. The starting date of this period must be always the same as the starting date of the respective targets of activities. When there have been unforeseen accomplishments which are clearly related to the attainment of the objectives they should be recorded.

In the fourth column will be noted the percentage of accomplishment of the targets of activities for the year. When this target is expressed in figures the percentage is computed directly, dividing column 3 by column 2. If the target is not in figures the writer should make a reasonable estimate of the percentage of accomplishment, based upon his knowledge of the project. There is a need to stress the fact that, while working out the percentage of annual targets achieved, no adjustment whatsoever should be made. Just indicate under "Remarks" the period covered in each case and simply divide the figures in column 3 by those in column 2. In the fifth column will be recorded the factors that have facilitated or impeded the development of the project and also any other information that may be considered important in its evaluation.

The final page of the form is not divided into columns and is intended to provide a brief assessment of results of the project as a whole, and here is noted: (1) The date of commencement; (2) A quantitative and qualitative assessment of the results; (3) The factors which facilitated or impeded its development; (4) Its impact upon: (a) The specific field of the project,[1] (b) The health sector in general,[2] (c) The socio-economic sector when possible;[3] and (5) Remarks.

8.3 C. Analysis of the Results

- Verification of the degree to which the objectives have been achieved by using indices and percentages of accomplishment of the activities.

- Determination of the extent to which a change in the level of health can be attributed to project activity.

Both tasks should be performed at all levels of the Organization. In the first place by the project staff, who should use the results in order to better orient their own activities. Subsequently by the Country Representative, who will in this way obtain accurate information on the development of the projects within his jurisdiction. Then by the Chief of

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1/ This refers to its effect upon problems directly related to the project: The attainment of a satisfactory level, strengthening of the technical and administrative structure, etc.

2/ This refers to the positive contributions of the project outside of its specific field: Promotion of other types of training, establishment of new services, better understanding of health problems, etc.

3/ This refers to the improvement of economic and social conditions attributable to the project: Better performance in school (Nutrition Project); reduction of economic loss due to sickness (Medical Care or Eradication or Disease Control): increase of agricultural or industrial production (Water Supply Project); etc.

Zone and his advisers, who should carry out a deeper analysis and identify the favorable and unfavorable factors influencing the development of the project in order to orient their own supervisory functions. Finally, by the appropriate Department in Washington, where a study in depth of the whole process should be carried out, including a careful analysis of each of the factors involved, a review of the indices in order to assess their validity and suggest any changes, an examination of the activities to see whether they have been clearly defined and to propose any changes that they deem necessary.

To sum up: The results of Evaluation should be used at all levels of operation in order to orient the activities of the Organization upon an objective and rational basis.

In the preparation of this Document we adapted--to meet the special nature of our projects--some aspects of the approach to evaluation being developed by the Research Program on "Evaluation of Public Health Practices," Department of Community Health Services, School of Public Health, University of Michigan, Ann Arbor. We take pleasure in acknowledging our debt to Drs. V. A. Getting and I. M. Rosenstock, Director and Co-Director of the Research Program.

Project Number

Page Number

EVALUATION SHEETS

(Continued)

(1) Purpose and objectives	(2) Targets of activities for the calendar year	(3) Activities carried out during the period	(4) % of achievement targets	(5) Remarks

GENERAL APPRAISAL

Project Number _____

Date of commencement of project _____

1. Quantitative and qualitative appraisal of results, including degree of attainment of objectives by using appropriate indices.

2. Factors that facilitated or impeded its development.

3. Impact upon: (a) the specific field of the project.*

   (b) the health sector in general.**

   (c) the socio-economic sector, when possible.***

4. Remarks.

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* Its effect upon problems directly related to the project; the attainment of a satisfactory level, strengthening of the administrative structure, etc.

** Influence of the project outside of its specific field: promotion of other types of training, establishment of new services, better understanding of health problems, etc.

*** It refers to the improvement of economic and social conditions attributable to the project: better performance in school (Nutrition Project); increase of agricultural or industrial production (Water Supplies Project); reduction of economic loss due to sickness (Medical Care or Eradication or Disease Control Projects), etc.

EVALUATION SHEETS

Date _____

Project Number _____

Title _____

Cooperating Projects _____

Project Chief _____

Advisers _____

_____

Country Representative _____

(1) Purpose and objectives	(2) Targets of activities for the calendar year	(3) Activities carried out during the period	(4) % of achievement targets	(5) Remarks

(1) State the purpose and objectives of the project just as they appear in the Basic Document.
(2) To attain each objective, one or more specific activities have been planned; for each activity there must be set an annual target in the most concrete form possible, preferably in figures. Put down the final activities carried out with respect to each annual target. Bear in mind that we are concerned with the activities of the Project and not those of the consultant. Make sure that the numbering of the target coincides with that of the corresponding objective.
(3) State the activities accomplished in relation to each target; if the target is in figures, the accomplishments should also be expressed in figures. Set down other accomplishments, if any.
(4) Calculate the percentage dividing (3) by (2) and multiplying it by 100. If the target is not in figures, give an estimated percentage.
(5) State the factors that have facilitated or impeded the development of the project; other remarks.

DATE STAMP

PAN AMERICAN HEALTH ORGANIZATION

Pan American Sanitary Bureau, Regional Office of the

WORLD HEALTH ORGANIZATION

INTER-OFFICE MEMORANDUM

NUMBER			
ROUTE TO	INITIAL	DATE	ACTION TAKEN
⇩ REROUTE FOR:			ACT / INFO
READY FOR FILING (PLEASE INITIAL)			

In Reply Refer to: AER/E-210-68

8 July 1968

To: Chiefs of Department, Chiefs of Zone, Country Representatives, and Project Chiefs

From: Abraham Horwitz, Director

Subject: Project Evaluation

You will recall that in my address at the Senior Staff Meeting in February this year I stated, "There is need for an evaluation of three types: firstly, one of a regional character based upon the objectives set in the Charter of Punta del Este; secondly, of a functional character dealing with the various subdivisions of our program budget; and thirdly, of projects within each main program. All this needs to be done in such a way that it can, at the same time, be set out on a country basis."

The present instructions deal with the appraisal of existing projects, and this is only the first stage in a series of developments in the important field of evaluation. I expect all our colleagues to take part in this dynamic process.

Following upon the series of meetings held recently in Zone Offices, with the participation of representatives from the Department of Evaluation, I now attach the General Instructions for Project Evaluation. These instructions are to take immediate effect.

I shall be grateful if you will take the necessary action to ensure that the staff responsible for each project in the area under your jurisdiction begin at the earliest possible date the preparation of the Basic Document in accordance with the enclosed instructions. If they have not already done so, they should then set the targets of activities that it is hoped to attain this year.

After the Basic Document and the Targets for the year have been completed, two copies of each document should be sent to this Central Office, Attention AER.

The Department of Evaluation is preparing a program of visits to countries where the staff, for one reason or another, were unable to take part in the recent meetings in Zone Offices. The purpose of these visits to the countries will be to work with Country Representatives and Chiefs of Projects on the preparation of these two documents.

Any question about the implementation of these instructions may be taken up directly with the Department of Evaluation, where they will be dealt with without delay.

I shall be grateful for your personal attention to this matter.

... Attachment

GENERAL INSTRUCTIONS FOR PROJECT EVALUATION

1. Introduction

For systematic Project evaluation we have been using up to now an 'evaluation sheet,' which is prepared by the Project staff and sent to the Central Office twice a year.

The present instructions do not make any basic change in the existing system. What they do is to rearrange the data, clarify the inter-relationships among the components of evaluation and facilitate the interpretation of the true significance of each activity in the achievement of an objective.

In the Working Paper on Evaluation, which has been fully discussed at all levels of the Organization, there will be found a more complete description of the procedure to be followed. That document needs, therefore, to be read in conjunction with these instructions.

2. The Projects

There is only one official list of the projects in this Region. This is the Project and Allotment List, which is published monthly. It is the responsibility of the Chief of Zone to make sure that each listed project falling within his jurisdiction is clearly assigned to the apporpriate staff member for the purpose of preparing evaluation documents.

3. Country Projects

All Country Projects will have to be reviewed for the purpose of preparing the appropriate Basic Document and setting the Targets of activities for 1968. The national counterpart should be associated with this task, since it deals with programs being developed by the Government, and the Organization is acting only as a cooperating agency.

4. AMRO Projects

When an AMRO Project is performing activities in a country where there already exists a definitive project within the same field (Sanitation, Nursing, Leprosy Control, Smallpox Eradication), the purpose, objectives, and activities as well as the evaluation should be an integral part of the Country Project. Nevertheless, we would like to stress the importance of the participation of the AMRO Project in the corresponding Project in the same field.

When in one or more countries there are activities in the field of an AMRO Project and there is no definitive Country Project, the Basic Document for the AMRO Project should be prepared in such a way as to identify the problem, purpose, objective, activities, etc. for each country separately. This procedure will ensure that what is happening in the countries will invariably be reflected in the evaluation documents.

5. Staff Responsible

The responsibility for the preparation of these documents rests upon the Project Chief or the official acting as such.

6. Subject of Evaluation

Our intention is to measure the degree of accomplishment of the purposes and objectives of the Projects by the use of selected indices and of percentages of achievement of the Targets of planned activities. There is no question whatever of evaluating the advisers or their activities.

7. Frequency of the Evaluation

Project evaluation will be carried out as of 30 November each year. The new Evaluation Sheets, duly completed, will be sent to the Central Office before 10 December.

8. Preparation of the Basic Document (Working Document 8.1)

This document is prepared at the outset. The situation and the project content will, of course, change from that moment on, but these changes will be recorded in other places in the Reporting System, e.g., the Quarterly Report. The Basic Document will remain, as its name implies, the unchanging record of the situation at the outset.

8.1 Brief Description of the Problem that Gave Rise to the Project (8.1.1)

8.2 Description of the Baseline Situation, using general indices or indices specifically related to the problem

This data should include information about the population, resources, current activities, etc., which are related to the problem and help to define the situation.

In the case of existing Projects the information given should be in respect to the year 1967 or the most recent year for which data are available.

8.3 Definition of Purpose or Purposes (8.1.2)

The purpose or purposes of the Project should be defined in terms similar to those used in describing the problem, but in the opposite sense.

8.4 Definition of Objectives (8.1.3)

In order to attain the purpose of the Project it is first necessary to achieve a series of objectives. There are occasions when a single objective suffices but this is exceptional; usually it is necessary to identify a number of objectives, each one of which contributes to the attainment of the purpose.

Five criteria should be applied to a given objective in order to determine whether it is adequately defined to permit subsequent evaluation. These criteria are as follows:

(a) Is there a clear definition of the specific condition of people or the environment that is to be attained?

(b) Is there a clear specification of the particular group of people or portion of the environment in which the objective is to be attained?

(c) Is there a clear specification of the geographical location of the program?

(d) Is there a clear statement of the time period in which this degree of attainment is expected?

(e) Is there a clear statement of the degree or amount of intended attainment?

Finally, we must not forget that the objective is a state or situation to be sought and should not be confused with the activities that are planned in order to reach this state or situation.

8.5 Definition of Activities (8.1.4)

In relation to each objective it is necessary to specify the basic ("ultimate") activities that are performed to achieve this objective. In addition, the Project Chief should list the "intermediate" and "general" activities that he considers significant.

8.6 Selection of Indices (8.1.5)

In order to describe the baseline situation we requested the use of general or specific indices which would subsequently be used to measure the changes produced and/or the degree of accomplishment of the purposes and objectives of the project. It will also be necessary to select or devise other indices for certain objectives as well as for all the activities listed in the Basic Document.

8.7 Revision of Baseline Situation

After defining the objectives and activities it is advisable to return to the Description of the Baseline Situation and revise it if necessary.

9. Setting of Annual Targets for 1968 (8.2)

For each of the activities listed in the Basic Document it is necessary to set annual Targets, in this case for 1968. For this purpose one needs to take into account the human and material resources available for the Project and particularly the level which it is hoped to achieve by the end of the year and the total period estimated for the achievement of the Objective as a whole.

Care should be taken to ensure that the numbering of each Target is the same as that of the corresponding Objective.

We must bear in mind the fact that we are dealing with the Targets of the Project and not those of the Adviser.

When the Targets have been established, a record of Project activities should be kept in such a way as to facilitate, at the end of the year, the preparation of the new Evaluation Sheet. This new Evaluation Sheet, which will shortly be distributed, will contain precise instructions for completing each section. The last page calls for a General Appraisal, which will include an assessment of impact in the specific field of the Project, on public health in general and on socioeconomic development. It is appropriate, from this moment on, for Project staff to give consideration to this aspect of the evaluation, so that they will be prepared to make the most objective appraisal possible. So far as the socioeconomic impact of Projects is concerned, we do not, of course, ask for measurement. We ask only that data be sought, appraised, and recorded.

RESOLUTION XV

HEALTH LEGISLATION

HEALTH LEGISLATION

In compliance with a recommendation by the Special Meeting of Ministers of Health of the Americas, the Director submitted to the 61st Meeting of the Executive Committee Document CE61/4, in which he informed the Committee concerning the steps taken towards to carrying out a comparative study of health legislation in the American countries, with special reference to the constitutions, special legislation and penal codes, and the provisions concerning health contained in these instruments. The study so far has covered the health legislation of 20 Latin American countries, and the next stage will involve a similar study of the health legislation of the English-speaking countries of the Americas and a review of the Pan American Sanitary Code.

The Executive Committee adopted the following:

RESOLUTION XV

"THE EXECUTIVE COMMITTEE,

Having considered the preliminary report of the Director (Document CE61/4) on the steps taken to implement the recommendation contained in Chapter XIII of the Final Report of the Special Meeting of Ministers of Health of the Americas, that studies be made of the health legislation of the countries and of the Pan American Sanitary Code,

RESOLVES:

1. To take note of the report of the Director (Document CE61/4).

2. To urge the Director to continue the comparative study of health legislation in the Americas and the analysis and review of the Pan American Sanitary Code and to submit them to the 64th Meeting of the Executive Committee.

3. To request the Directing Council that it invite the Member Countries to provide such assistance as may be necessary in carrying out the above-mentioned studies."

executive committee of the directing council

PAN AMERICAN HEALTH ORGANIZATION

working party of the regional committee

WORLD HEALTH ORGANIZATION

61st Meeting
Washington, D. C.
June-July 1969

Provisional Agenda Item 11

CE61/4 (Eng.)
17 June 1969
ORIGINAL: SPANISH

HEALTH LEGISLATION

Pursuant to Resolution XXIII of the XVII Meeting of the Directing Council, the Director submitted a preliminary report on the relations of health to law to the 59th Meeting of the Executive Committee. That Committee recommended to the XVIII Meeting of the Directing Council that it approve the preliminary report of the Director of the Bureau on the relations between health and law and requested him to submit a report on the problem to the XVIII Pan American Sanitary Conference including a revision of the Pan American Sanitary Code. These suggestions were adopted by the Special Meeting of Ministers of Health held in Buenos Aires in October 1968. The Ministers recommended:

"1) That Governments - even though some have begun or are beginning to modernize their health legislation - take the necessary steps to revise their health legislation and keep it abreast of scientific advances as well as the needs of economic and social development. Such legislation should contain provisions relating to the individual and collective right to health.

2) That careful studies be made and appropriate steps be taken to achieve a degree of uniformity in national health legislation or sufficient flexibility to ensure international cooperation.

3) That PAHO arrange for a thorough study to be made of the Pan American Sanitary Code in the light of advances in science and technology, existing problems, and the effects of social and economic development. Such a study should decide whether or not it is desirable to replace or modify the Code to provide a flexible instrument which can be periodically brought up to date and thus be brought into accord with national and international legal instruments concerned with health and development."

In response to the recommendations of the Governing Bodies the following measures have been taken:

- An examination of health legislation of the countries in order to bring out its salient characteristics, its development, and the subjects covered by it and to evaluate its future trends and prospects. The information collected will permit a comparative study to be made of the main features of this legislation.

- A study of the Pan American Sanitary Code in relation to national and international legislation in force in the Continent, in the light of scientific and technical advances and the needs of economic and social developments.

To keep the Committee abreast of the progress of this study, the detail of the measures taken or to be taken to implement these above-mentioned recommendations is given below.

The first phase of the study of health legislation covers information available for the period 1948-1966 for the following twenty countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatamela, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela. The legal systems of these countries are comparable since they have a common origin.

Three types of legislation have been studied: constitutions, special legislation, and penal codes. Most of the constitutions have been reviewed in order to identify provisions relating to health. Special health legislation including health codes has been reviewed. Finally, the chapters of the penal codes relating to health have been examined. In the case of countries with federal constitutions, only federal legislation has been examined, since to study the state laws as well would overcomplicate matters. So far, a descriptive analysis has been made of each subject area, and pertinent considerations have been formulated.

Shortly the study will focus on common features of health legislation in the English-speaking countries of the Americas. As in the case of Latin American countries, in countries with a federal system, state laws will not be dealt with.

As soon as a general review has been made of health legislation in the countries of the Continent, the Pan American Sanitary Code will be analysed in detail in accordance with Recommendation No. 3 of the Special Meeting of Ministers of Health.

These studies will make it possible in due course to compile a catalogue of the health legislation of the Americas.

The study on health legislation and that on the Pan American Sanitary Code are planned to be ready in time for submission to the Pan American Sanitary Conference.

directing council

PAN AMERICAN HEALTH ORGANIZATION

XIX Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXI Meeting

Washington, D. C.
September-October 1969

Provisional Agenda Item 20

CD19/21, ADD. (Eng.)
16 September 1969
ORIGINAL: ENGLISH

RESOLUTIONS ADOPTED BY THE 61st MEETING OF THE EXECUTIVE COMMITTEE REFERRED TO THE DIRECTING COUNCIL

RESOLUTION XII

PROPOSED CRITERIA FOR MULTINATIONAL CENTERS

PROPOSED CRITERIA FOR MULTINATIONAL CENTERS

The Executive Committee, at its 61st Meeting, approved Resolution XII, quoted below. To assist the Directing Council in its consideration of this subject, the Director is pleased to present summary background information on the characteristics of multinational centers and existing criteria for their planning, organization and operation.

"THE EXECUTIVE COMMITTEE,

Considering that at present there are a number of multinational centers in the Americas to the financing of which a considerable amount of the funds of the Organization is allotted: and

Noting that the countries in which these multinational centers are situated benefit more directly than others from the advisory, training, and research activities carried out in them,

RESOLVES:

1. To recommend to the Directing Council that it request the Director of the Bureau to appoint a Study Group to draft criteria governing the establishment and operation of centers and programs intended for several countries and sponsored by the Organization, taking into account the views expressed by the Members of the Committee.

2. To recommend to the Study Group that in drawing up these criteria they take the following aspects into consideration:

a) The proportion of the funds contributed to the project by the Host Government and the Organization;

b) The duration of the Organization's assistance;

c) The implications of the project for similar programs at the national level; and

d) Approval by the Directing Council or the Conference.

3. To recommend that the proposed criteria be submitted to the 64th Meeting of the Executive Committee."

Definition of Center

Every center comprises a unique combination of factors, each of which affects the criteria governing that center's existence. Indeed, the use of the term itself is optional since some national educational and research institutions - providing training in specialized fields or specific subjects for their students as well as those from other countries, with the assistance of PAHO/WHO - call themselves a "center", whereas others do not. In general, the Organization adopts the nomenclature of the sponsoring Government but normally applies the term "multinational center" to those institutions with international administration. The Director interprets the resolution of the Executive Committee as intended to apply to the latter, but both types of centers are discussed in the interest of clarity.

National Centers

As stated, in this category are included activities being carried out by national Governments with the declared intent of providing services for its own programs and agencies as well as for other countries. PAHO/WHO cooperates in the development of the center upon request of the Government, applying the same principles and program priorities as it does for any other project. Therefore, a plan of operation is agreed upon, outlining the objectives, methods to fulfill them, assignment of executive responsibility, financial contributions of the Government and the Organization, and duration.

Examples of projects in this group are:

VENEZUELA-4802, Center on Hospital Maintenance and Engineering

MEXICO-3301, Training Center in Immunology

PANAMA-4700, Food and Drug Control

COLOMBIA-6203, Center for Teaching Pathology

BRAZIL-4100, Training Center in Nursing Midwifery

ARGENTINA-4803, Latin American Center for Medical Administration

The promotion of these kinds of institutions by PAHO/WHO, has been a matter of policy intended to identify and develop those of a high quality, in specific health fields, for the host country as well as others of the Americas and other Regions of the world. It avoids duplication, concentrating available human resources and expanding their knowledge and experience for an increasing number of students and graduates. It assists Governments that at present do not have the financial possibility to organize similar establishments. Educational programs as well as investigation, are based on prevalent problems, taking into account social and cultural characteristics. Obviously, the ratio of national to international activities varies with each center, and affects the type and duration of assistance from international sources.

Multinational Centers

The creation of multinational centers is based on requests from several Governments. They are formed when they appear to promise the most effective utilization of manpower and resources toward achieving a common goal, thus avoiding costly duplication.

The need for such centers arises out of problems of common interest to several countries which can most effectively be dealt with by PAHO/WHO cooperation and for which there is no existing institution. As already stated, they are administered by an international staff supported primarily by international funds with important contributions from the Host Government. Their programs of education, research and advisory services are for all the countries or a group of them in a particular area of the Region. Those in operation are briefly described below:

The Institute of Nutrition of Central America and Panama (INCAP) was created by an agreement signed by the Governments of the area. It was decided that it should be administered by PAHO/WHO. In its 20 years of existence it has evolved as a high quality regional center serving the Americas as well as other countries of the world.

The Pan American Zoonoses Center deals with problems of zoonoses of interest to a large number of countries, concentrating its activities on a regional basis on rabies, tuberculosis, brucellosis and hydatidosis. It is supported by funds from PAHO/WHO, UNDP and from the Government of Argentina.

The Pan American Foot-and-Mouth Disease Center was started as an OAS Technical Cooperation project with PAHO as the administering agency, later taken over as a PAHO program by resolution of the Directing Council. The problems of international control of animals and meat products make obvious the need for action on a multinational basis. The high infant and early childhood mortality in Latin America, and the heavy economic losses due to preventable zoonoses, explain the urgency of concerted activities for the solution of these problems.

The Pan American Health Planning Center began as a PAHO training course. The financing by the UNDP Special Fund is based on requests from several Governments.

The Caribbean Food and Nutrition Institute, is intended primarily to serve the English-speaking countries and territories of the Caribbean with the agreement of their Governments.

Sources of Funds

Resolution XII of the 61st Meeting of the Executive Committee refers to proportion of funds contributed by the Host Government and the Organization. It is obviously a factor of importance for all centers since it entails a set of special criteria to establish them.

For multinational centers the support from the Host Government usually consists of providing land, buildings, and some local services staff costs. In all the centers mentioned above it is of great significance, way beyond the benefit that the country derives.

International contributions usually have the following origins:

WHO/PAHO Regular Budget: Funds of these two organizations are appropriated on an annual basis. Long-term program financing is always subject to availability of resources year by year. This automatically subjects each center and its program to an annual review and approval by the Governing Bodies of the Organization.

UNDP: The UNDP has established a full set of requirements and procedures for a Government request and responsibilities, plan of operation and role of the executing agency (WHO for health projects).

Grants. Foundations and institutions have their own norms and procedures governing requests.

Specific Quota Assessments: In the case of INCAP, the international agreement by which it was established provided for a system of assessments to be contributed by the signatory countries.

It often occurs that a center is financed by several sources of funds, each one having its own requirements to be followed.

SUMMARY

From the foregoing explanation it will be clear that there exists a complex body of criteria for both multinational and national centers reflecting the multiplicity of factors affecting individual projects.

For PAHO/WHO of paramount importance are the nature of the problem and its priority in the context of health in the Americas; the needs and resources of various countries; the expressed interest of one or more Governments; the existence of a high quality institution able to serve as a focal point and evolve towards a true international entity, and availability of human and material resources for each project.

Experience shows that up to now Governments establish national centers serving other countries with international assistance. Some require it during the formative stages and then carry on without it, whereas others need long-term support from international agencies. This explains the difference in the contributions by the Host Government and the Organization in the various programs being sponsored by PAHO/WHO at present. Their good results are the best arguments for this overall enterprise.

The Director will provide to the Directing Council all the information and collaboration in any study which might be decided on this subject.