directing council

PAN AMERICAN HEALTH ORGANIZATION

XIX Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXI Meeting

Washington, D.C.
September-October 1969

Agenda Item 33

CD19/26 (Eng.)
29 September 1969
ORIGINAL: PORTUGUESE

BRAZILIAN PLAN FOR THE COORDINATION OF ACTIVITIES RELATING TO THE PROTECTION AND RECOVERY OF HEALTH

(Item proposed by the Government of Brazil)

The Director of the Bureau has the honor to submit to the consideration of the Directing Council the attached document, presented by the Government of Brazil.

(TRANSLATION)

Commission of International Affairs

Of.CAI/537/69

Rio de Janeiro, GB
1 September 1969

Dear Dr. Horwitz,

I am writing to you with further reference to a subject we have discussed a number of times in our conversations.

In accordance with Brazil's national health policy, His Excellency the President of the Republic recommended that the Ministry of Health work out a National Health Plan which would reflect and crystallize the thinking and the theory behind the policy laid down and adopted.

To this end, following a careful study and a painstaking analysis by senior representatives of the Ministry of Health, State and private organizations working in the health field, workers' associations and members of the National Legislature belonging to the Health Commission, a Plan was drawn up for the Coordination of Activities relating to Protection and Recovery of Health.

As was hoped and welcomed, the Plan gave rise to heated debate, with a democratic phase of free expression of opinion in the medical and lay press, and among professional associations of the most varied tendencies, finally leading up to the IMPLEMENTATION of the Plan in areas carefully chosen as representing the most characteristic geo-political features of the Brazilian sub-continent.

The Pan American Health Organization has long taken a profound interest in the problem, and I need not refer here to the repeated interventions and initiatives of the Organization since the time when the Directing Council resolved to ask the Director to take up the subject as a priority matter.

In these circumstances, the Ministry of Health feels that the stage has been reached when the experience gained in Brazil should no longer be restricted to the national territory; the subject has now fully matured, and deserves the attention of the other countries in the Americas.

When the Directing Council meets in September, I think it would be of advantage to all concerned to include in the Agenda a special item comprising

a detailed account of the Brazilian Plan for the Coordination of Activities relating to the Protection and Recovery of Health, which would no doubt be greatly enriched by the comments of the participants in the Meeting of PAHO's supreme organ, namely its Directing Council.

On the instructions of the Minister, therefore, I would request you to take such steps as you deem necessary in this direction, and I thank you in anticipation.

I have the honor to be, etc.

(Signed) Murillo Belchior
Executive Director

Dr. Abraham Horwitz
525 - 23rd. St.
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MINISTRY OF HEALTH

A PLAN FOR THE COORDINATION OF INDIVIDUAL HEALTH SERVICES IN BRAZIL

May 1968

MINISTRY OF HEALTH

A PLAN FOR THE COORDINATION OF INDIVIDUAL HEALTH SERVICES IN BRAZIL

May 1968

This plan has been drafted in fulfillment of basic directions from Marshal Costa e Silva's Government

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FOREWORD

The activities of the Ministry of Health, up to the first few months of 1968, resulted from methods of an essentially collective nature. Now to this responsibility has been added that of coordinating the rendering of medical services to the population.

The whole array of health acts performed for the protection and restoration of health, therefore, has now been integrated under the coordination of a single agency, as recommended by all those conversant with the subject.

The Brazilian Constitution and the Administrative Reform Law assigned to the Ministry of Health the new task, thereby sanctioning the course prescribed by authorities and experts as an initial step towards the solution of problems derived from a disorderly distribution of human, material and financial resources, an inconsistent performance of medical personnel and agencies, and an inadequate system of relations among the administrators, executors and users of the various and unconnected health programs under way.

As the difficulties in this sector got recently worse and worse, the Social Security Administration, State governments and other authorities

requested the Ministry of Health to accomplish its new tasks without further delay.

To this effect and obeying the directions of the President of the Republic, simultaneously with measures aiming at stepping up priority public health programs there was started a series of studies and programs indispensable for the Ministry to take up the job of coordinating the health services system. These studies and programs will be discussed at length in this paper.

The present program deals with basic measures required for the coordination of activities relative to the protection and restoration of personal health. Specific public health activities — while making up, together with medical care, an integrated system of medico-sanitary action — are dealt with in a separate paper still being drafted, wherein their methods and organization will be reviewed.

Planning will comprise basically theree stages. The first stage was the statement of the national health policy, through Decree-law 200, of February 1967. The second, as explained in the following pages, has to do with the setting up of rules, patterns and directives pertinent to the organization, costs, resources and implementation of medical care activities to be coordinated by the Ministry of Health. The last stage of the planning process, already begun, includes the drawing up of local schemes corresponding to the health areas in which the national territory is divided. Such local schemes, in accordance with the national health policy, are indispensable, owing to the peculiar features of the various Brazilian regions.

This planning process, however, should not prevent that

before the first half of 1968 is over work be started on the setting up of the new system in various parts of the country.

The time taken up until now could not have been shorter. Besides the need to carry out surveys and studies, we depended on a preliminary discussion of the matter with the President of the Republic, so that he could take the decisions that guided our work. The suggestions and assent of the Ministers of Planning and General Coordination and of Labor and Social Security also represented basic preliminaries. The selection of administrative experts for working up the projects also took some time. And, moreover, a considerable number of days were spent in interviewing dozens of specialists and authorities on health problems.

In spite of this careful preparation, we are convinced that planning will be to us a permanent activity. Not only because many prescriptions can be perfected as a result of research but also owing to the fact that the constant evolutionary process creates every now and then new and complicated problems demanding a permanent revision of methods and solutions.

We deem it highly significant from a technical and political point of view that the Health Committee of the Chamber of Deputies decided to set up a Commission of five illustrious representatives to follow up the process of planning and inaugurating the new system. It has been decided, in principle, that the directives and regulations, confirmed or modified by dint of experimentation on the field, will make up the draft of a National Health Law to be presented to Congress for enactment.

The objective of the Legislative Power is the same that inspires

the Executive, as expressed in the doctrinal conception of health: to provide the largest number of Brazilians with the highest possible levels of physical, mental and social welfare.

Should our goals be reached, the urban and rural populations will be offered, respectively, twice and three times the amount of medical care they now enjoy. To this end we dedicate our best efforts and invite the collaboration and good will of the authorities, the people and, in particular, our colleagues of the medical profession, on whose capability and devotion depend, undoubtedly, the results aspired to.

LEONEL MIRANDA

Summary of the principles and directives of the NATIONAL HEALTH POLICY

- The protection and restoration of health are to be effected through a complete linking of the various medical and sanitary activities, aiming at the physical, mental and social well-being of man and the socio-economic development of the country.

- In the allocation of resources priority will be given to the fight against transmissible diseases.

- The nature and quality of the assistance will be a product of the economic stage of each community, and any gaps will be made narrower by an adequate redistribution of resources by the government.

• • •

- All activities relative to normative orientation and basic control of medical services are incumbent on federal and state organs; management of the services on local agencies, and executive work on the professional personnel and groups of the system.

- Medical services should be set up in proportion to the resources

available and according to the real needs of the population, regardless of occupational or social classes and on the basis of population density and degree of wealth of each area.

• In order to reduce operational costs and expand the field of action of college level professionals, these will be allowed to employ auxiliary personnel for the execution of jobs which do not require great technical qualifications.

• • •

• Collective health protection is primarily a governmental responsibility, with the possibility, however, of private participation in the process, under government control. Sectoral programming will include the eradication or control of transmissible diseases and permanent local activities in connection with immunization, maternal and child protection, food hygiene and basic sanitation.

• Medical care activities should be primarily of a private nature, without preclusion of government incentive, coordination and partial financing.

• The structure of the medical services should provide the user with the right to choose the doctor and hospital of his preference, but the amount of government defrayal will not vary in terms of such choice.

• Without sacrificing any of the scientific, social and economic aspects of the drug industry and trade, the action of health agencies should comprise the adoption of measures to promote, in connection with medicines

intended for low income patients:

a) as regards production and trading:

- reduction of expenses with all propaganda directed to doctors, consumers or dealers;

- simplification of packing processes;

- suppression of formulas with identical healing value;

- avoidance to increase the cost of remedies by an excessive transfer of profit items, capital returns or patent royalties;

- control of quality;

b) as to directly aiding the consumer, steps should be taken to assure the proper destination of benefits provided.

Everything connected with the dispensation of medicines should be put under the control of local associations of doctors and consumers, but with no intention of interfering with the private structure of drug manufacture and distribution.

• • •

- Research, coordinated and supported by financial resources belonging to the health system, will be primarily directed to the eradication of endemic diseases.

- The health sector will appraise its needs in college, middle and auxiliary level personnel, and professional formation will be incumbent on the educational sector, with supplementary cooperation by the health sector.

- Improvement of personnel qualifications will be achieved through measures aimed at providing general training, extension courses and the granting of scholarships.

- The collection of data on health protection and restoration will be carried out by the health system. Data processing will be the responsibility of the national statistical office, in accordance with the needs of the system.

- The remuneration of professionals and groups working for the medical care system will be kept at levels compatible with the high importance of their activity, but there must be correspondence between the work performed and the remuneration paid out.

- Fees corresponding to services rendered by doctors will always be paid directly to them, as distinct from payments made to groups or agencies.

- The financing of medical services by the government must obey criteria that will make it insusceptible of raises on account of individual variations in the technical or pecuniary behavior of professionals or groups.

- Except for the needy, no one will be exempt from paying for medical services received, even though for about half of the population the requirement should be looked upon as a mere device for regulating demand.

- Direct participation of the user in financing the system will vary according to his personal income.

- All self-initiated action to provide coverage of the user's share of expenses through insurance policies, employer cooperation or any other means - provided the right of free choice of doctors and all other principles pertaining to the national health policy are respected - will be coordinated and backed by the agencies of the health system.

1 - BASIC STRUCTURE OF THE SYSTEM

11 - GENERAL PROVISIONS

111 - DECENTRALIZATION

111.1 Medical services within the health system will be provided through local structures corresponding to "health districts" delimited as described further on.

111.2 The installation and activities of the system in each health district will obey a local scheme set up in accordance with the directives and rules contained in this basic coordination plan.

112 - HEALTH AREAS

112.1 Initially, there will be adopted as health districts the territorial groupings set up by the IBGE Foundation[1] on the basis of economic interdependence among counties. These groupings may me altered in view of specific health problems dealt with in the local planning.

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[1] Brazilian Geographical and Statistical Institute

11.2. With a view to programming the setting up of activities in keeping with administrative desirability and the size and complexity of local problems, a distinction will be made between ordinary health districts and those subject - as established by the Ministry of Planning and General Coordination - to programs of "integrated urban development". Appendix 112 lists all health districts, the number of counties comprised by each and its population.

113 - STRUCTURE OF THE HEALTH SYSTEM

113.1 The planning, supervision, coordination, control, management and execution of health programs will make up a system comprising:

- a national health department;

- regional health offices (one on each State and Territory and in the Federal District);

- field offices, privately run with community participation;

- professionals and executive groups or agencies within the field offices.

113.2 The system's health services will be run by professionals or groups adhering to it.

113.21 Professionals or groups choosing to to go on with their medical practices independently of the provisions of the national program will be considered as outside the system.

113.22 Previously enrolled professionals or groups will be looked upon as part of the system, in accordance with the structure set up by the local planning. This structure will be based on the provisions of this plan, taking account of local needs and allowing for the continued subsistence of professionals or groups outside the system.

113.23 Each professional or group within the system will be taken as an executive unit, as follows:

- doctors and other graduated professionals working in offices, clinics, services or hospitals;

- hospitals and clinics;

- complementary services for diagnosis and treatment;

- dental services;

- pharmaceutical services;

- mutual plan, capitalization or beneficent societies through which individual health expenses may be financed.

113.24 In view of geographic, demographic and nosological factors, there may be a degree of supplementation of resources among districts, States or regions, in order to guarantee a more rational use of available supplies. This should be practiced mainly in connection with specialized hospital care in extensive geographical areas, as in the case of leprosy, mental diseases, cancer and other ills.

12 - ADMINISTRATIVE ACTIVITIES

121 - NATIONAL HEALTH DEPARTMENT

All activities of planning, supervision, coordination and control on a national basis will be exercized by the Central Department of the Ministry of Health, which in addition to such specific functions as will be established in forthcoming laws and regulations, will:

- suggest, when advisable, a revision of the national policy and of the rules for the coordination of health protection and restoration;

- supervise the making up of local health plans;

- prepare the national health budget, striking a balance between charges and resources;

- allocate resources for financing health programs and redistribute them according to program schedules under way;

- follow up budget execution;

- establish specific rules for the various systems of auxiliary administrative activities;

- in states of public emergency or calamity, provide special resources for the affected zones;

- promote or carry out all necessary measures for the installation of the health system.

121.1 As a consultative body to the Central Department, presided over by the latter's director, there will be an Advisory Council made up of six members: three appointed by the Minister of Health and the remaining three elected individually by the Brazilian Medical Association, the National Workers Confederations and the Confederations of Employers.

122 - REGIONAL HEALTH OFFICES

122.1 Within each State, the activities of planning, supervision, coordination and control of field offices in the health districts will be exercised by a State Health Board consisting of three members in behalf of the State's Health Secretariat, the National Social Security Institute and the Ministry of Health, presided over by the State's Health Secretary or his legal representative.

122.2 Besides any tasks to be assigned to them by forthcoming laws or regulations, State Health Boards will:

- suggest, when advisable, the revision of policy principles and coordination measures incumbent on the National Health Department;

- pass judgment on local health plans and control their execution;

- follow up budget making in the health districts and prepare the sector's State budget;

- control all budgetary executions;

- discharge the functions belonging to the central units of auxiliary administration;

- conduct the execution of local measures to relieve the population of affected zones, in states of calamity or emergency;

- command the required steps towards the installation of the system in State health districts.

122.3 Each State Health Board will comprise an Advisory Committee headed by one of its members and consisting of six members, two appointed by the Board itself and the remaining four elected, respectively, by the local Medical Society affiliated to the Brazilian Medical Association, the State's Federation of Medical Unions, the State's Workers Federations and the State's Employers Federations.

123 - LOCAL HEALTH UNITS

In each health district, the direction and control of health protection and restoration activities will be laid upon nonprofit private societies constituted by the district's doctors and professional groups and by the representatives of the local community and of federal and State units. The establishment and running of these societies must obey the principles contained in Appendix 123.

123.1 Each municipality comprised in the health area will appoint a representative to look after its interests in the society.

13 - PERFORMANCE OF EXECUTIVE FUNCTIONS CONCERNING MEDICAL CARE

131 - DOCTORS

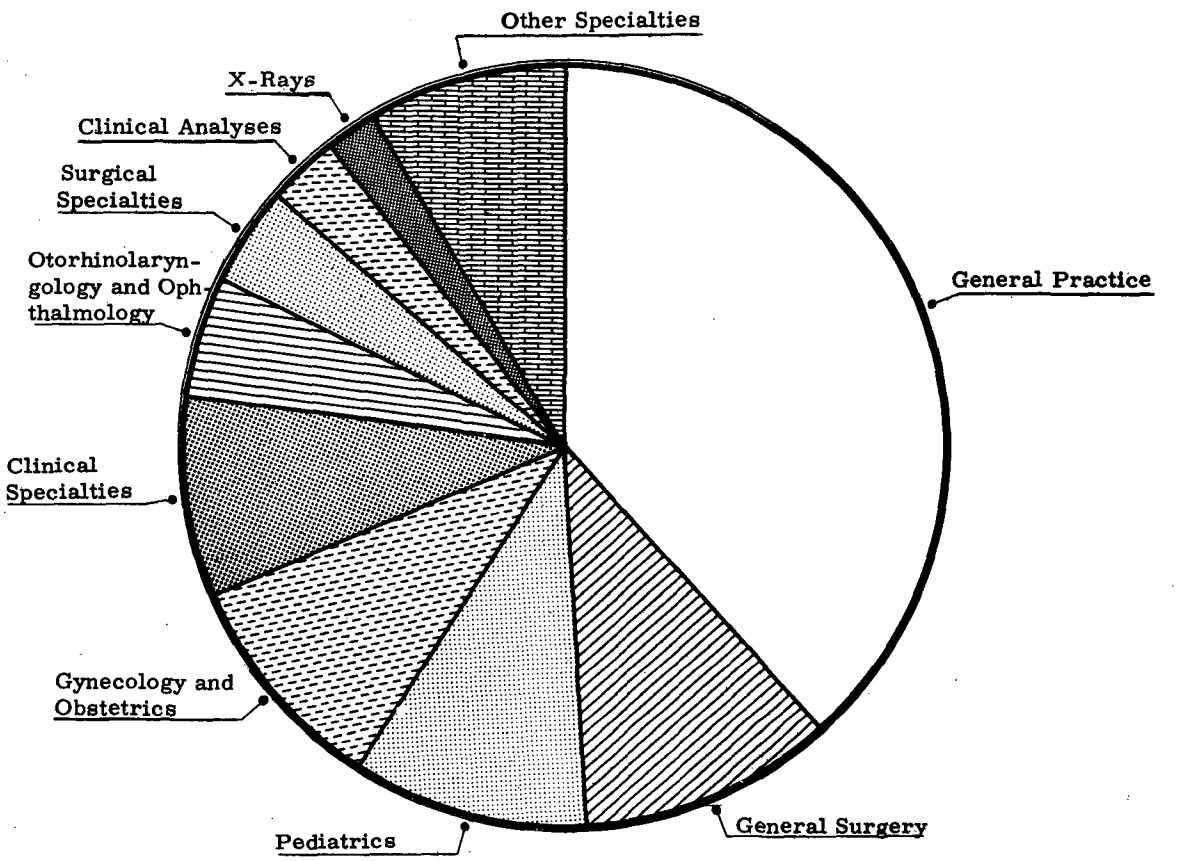
131.1 Existing registers on active doctors differ very much. It is therefore impossible to know with certainty the total of available doctors. It may be estimated, however, that there are at present in Brazil about 35,000 doctors. If we exclude the section of the population not yet provided with health services, there is one doctor for approximately 2,300 people.

131.2 Any complete solution for Brazilian health problems would be impossible on account of the scarcity of clinicians. But there are other concurrent factors that preclude that solution, chief of which is the large concentration of doctors in a few urban centers, as in the State of Guanabara, where there is a proportion of 440 inhabitants to a doctor. On the other hand, the doctors' productivity has been seriously reduced as a result of the state of relations among medical institutions, the professionals and the clientele. Moreover, the greater shortage of specialists and the quantitative and qualitative scarcity of middle level and assistant personnel add to present difficulties.

131.3 Questions relative to the shortage of doctors and to the relations between the latter and the institutions or the clients, and to the greater insufficiency of specialists and middle level and auxiliary personnel, are dealt with in different parts of this programming. What to do as regards the distribution of doctors - a high priority subject - will be discussed in the next paragraphs.

MINISTRY OF HEALTH

DISTRIBUTION OF DOCTORS BY SPECIALTY - 1967



131.4 The remuneration scheme, as explained further on, offers considerable incentives for doctors to go to areas with no health services or poorly supplied with them. So that the spontaneous mobility of doctors should tend to fulfill adequately, to the limit of the available resources, the real needs of each zone it is essential to establish beforehand the feasible clinical cadre one can aspire to, considering the total of doctors in the country, their specialties, the population to attend to and its economic stage.

131.5 Careful consideration of these factors affecting the distribution of doctors is to be found in Appendix 131.5, where medical work has been estimated in terms of hours in order to permit an easier calculation of the amount of medical work to be apportioned to zones unable to sustain a resident doctor.

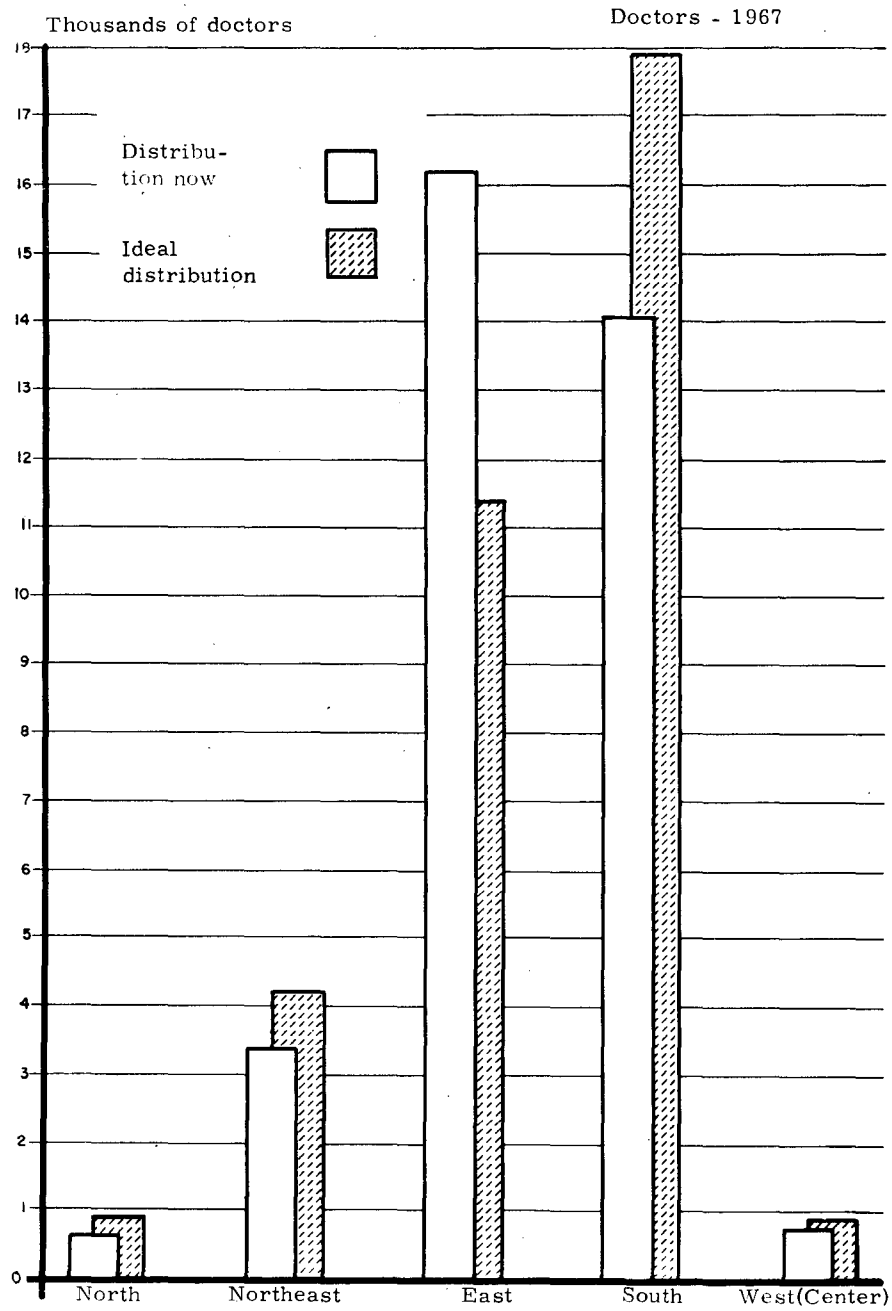
131.6 The number of medical hours attributable to a given area will be found by applying the local index on the total of hours being distributed. This index is arrived at by weighting the population and economic level of the area. The economic level can be assessed by finding out the values of the industrial processing and of local sales.

131.7 The adopted factors will make it possible, when planning for each health area, to project adequately its medical structure in connection with the various specialties. The distribution of doctors arrived at may be summarized as follows:

Physiographic Regions and States	Ideal Distribution	Distribution now	Shortage	Surplus
BRASIL	35,000	35,000		
North	868	635	233	-
Acre and Territories	119	64	55	-
Amazonas	248	112	136	-
Pará	501	459	42	-
Northeast	4,224	3,373	851	-
Maranhão	574	154	420	-
Piauí	280	224	56	-
Ceará	861	723	138	-
Rio Grande do Norte	308	245	63	-
Paraíba	497	420	77	-
Pernambuco	1,375	1,339	36	-
Alagoas	329	268	61	-
East	11,137	16,210	-	5,073
Sergipe	199	139	60	-
Bahia	1,694	1,700		6
Minas Gerais	3,304	3,383		79
Espírito Santo	455	293	162	-
Rio de Janeiro	1,593	1,782		189
Guanabara	3,892	8,913		5,021
South	17,973	14,044	3,929	-
São Paulo	12,768	9,235	3,533	-
Paraná	1,663	1,603	60	-
Santa Catarina	822	450	372	-
Rio Grande do Sul	2,720	2,756	-	36
West (Center)	798	738	60	-
Mato Grosso	280	261	19	-
Goiás	-	327	-	-

NOTE - The absence of essential data (industrial processing and amount of sales) affected the ideal distribution estimated for Brasilia.

MINISTRY OF HEALTH

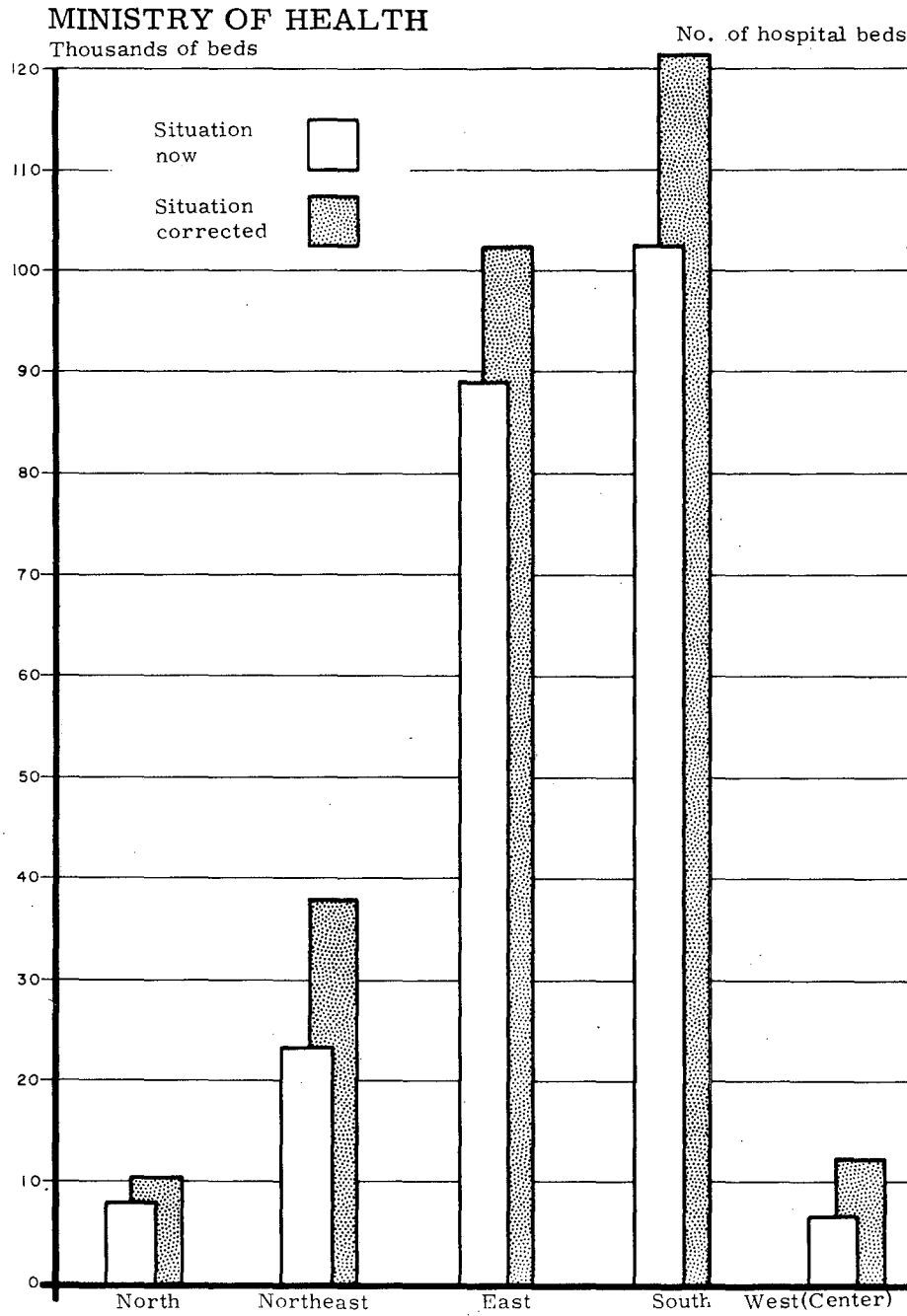


132.1 There are in Brazil - according do available data and considering the population that can be provided with health services - an average of almost three hospital beds for each group of a thousand people. This insufficient proportion is made worse by the inadequate location of many hospitals and, as is often the case, by the low yield of beds, both on account of 35% of them lying unoccupied and because of the long average period of individual hospitalization.

132.2 The subsidizing of hospitals through methods referred to in the corresponding chapter of this plan is meant to make amends for the low return of beds.

132.3 The inadequate location of many hospitals is often due to a lack of coordinated planning. This deficiency has been responsible for the construction of hospitals as a result of isolated initiatives and in obedience to criteria which seldom evaluate correctly basic factors represented by local needs and maintenance posssibilities.

132.4 The hospital structure of the health areas must take into account, as in the case of all other services, the economic stage of the community, any gaps being made narrower by an adequate redistribution of governmental resources. To this end, it will be necessary either to stimulate the creation of new beds or to promote the cessation or moderation of hospital growth, according to conditions prevailing in the area.


MINISTRY OF HEALTH
Thousands of beds
No. of hospital beds
Situation now
Situation corrected
120
110
100
90
80
70
60
50
40
30
20
10
0
North
Northeast
East
South
West(Center)

132.5 In over-all numbers, the general corrections expected to occur are, in principle, the following:

Physiographic regions and states	Situation now			Situation corrected		Bed Shortage
	No. of beds	Population (1,000)	Beds per 1,000 people	Beds per 1,000 people	No. of beds	
North	7,757	2,989	2,59	3,44	10,279	2,522
Rondônia	288	95	3,03	3,20	304	16
Roraima	95	36	2,64	3,00	108	13
Amapá	154	89	1,73	2,60	231	77
Acre	274	184	1,49	2,50	460	186
Amazonas	3,006	822	3,66	3,66	3,006	0
Pará	3,940	1,763	2,23	3,50	6,170	2,230
Northeast	23,372	17,204	1,36	2,21	38,081	14,709
Maranhão	1,158	3,038	0,38	1,00	3,038	1,880
Piauí	1,327	1,345	0,99	1,50	2,017	690
Ceará	4,399	3,619	1,22	2,00	7,238	2,839
Paraíba	2,766	2,152	1,29	2,00	4,304	1,538
Rio G. Norte	2,093	1,231	1,70	2,00	2,462	369
Pernambuco	9,395	4,475	2,10	3,50	15,662	6,267
Alagoas	2,234	1,344	1,66	2,50	3,360	1,126
East	88,237	27,229	3,09	3,77	102,555	14,318
Sergipe	1,323	812	1,63	2,50	2,030	707
Bahia	7,293	6,514	1,12	2,00	13,028	5,735
Minas Gerais	35,565	10,747	3,31	3,50	37,614	2,049
Espírito Santo	2,853	1,361	2,10	3,00	4,083	1,230
Rio de Janeiro	11,511	4,027	2,86	4,00	16,108	4,597
Guanabara	29,692	3,768	7,88	7,88	29,692	0
South	102,552	29,486	3,48	4,12	121,397	18,845
São Paulo	53,127	15,047	3,53	4,00	60,188	7,061
Paraná	11,768	5,888	2,00	4,00	23,552	11,784
Santa Catarina	9,694	2,469	3,93	3,93	9,694	0
Rio G. do Sul	27,963	6,082	4,60	4,60	27,963	0
West (Center)	6,653	3,820	1,74	3,20	12,241	5,588
Mato Grosso	2,197	1,162	1,89	3,49	4,060	1,863
Goiás and Federal District	4,456	2,658	1,68	3,08	8,181	3,725
BRAZIL	228,571	80,728	2,83	3,51	284,553	55,982

According to present economic conditions the supply of beds is taken as corrected in all areas whose availability equals or exceeds the one to be expected from the economic stage of the country.

133 - OTHER SERVICES

133.1 Complementary diagnosis and cure services - such as X rays, clinical pathology or physiotherapy - are to be set up proportionally to their respective specialties, as described in paragraph 131 and Appendix 131.5.

133.2 The maternity and nutrition sectors will be comprehended in the collective health programming.

133.3 Rehabilitation services should be set up in view of the problems and resources of each area.

133.4 The absence of statistical data on dentistry precludes the immediate formulation of rules for the organization of the sector. However, each health area is to be provided with dentistry services for the removal of granulomas and extraction of decayed teeth, with public subsidization of the needed professional cadres, whose number is estimated at about one fifth of the practicing physicians. Later on, when new resources are available for investiment on health protection and restoration and depending on the results achieved, such services may undergo expansion.

133.5 Nursing services are to be established as a complement to integrated medical action. Owing to the scarcity of nurses, until the formation of new professionals is stepped up there should be a more substantial employment of auxiliary personnel in the execution of tasks requiring ordinary qualification.

133.6 Social Service activities will be restricted, at first, to very special cases, as defined in this program.

134 - DRUG DISPENSATION

134.1 In the first stage of the system the pharmaceutical assistance will comprise financial help for the purchase of medicines, in proportion to resources available and individual needs, and control of drug destination. At this stage the benefit will be dispensed by the Social Service, which will be allowed to employ persons or groups familiar with beneficent work in order to cover all points of each health area.

134.2 The more extensive implementation of the national health policy as regards pharmaceutical assistance is to be achieved through the setting up of local consumers' cooperative associations.

134.21 Doctors, the whole population and any drug trading business existing in the area will participate in such associations.

134.22 In order to bring down the price of drugs intended for patients of low earning capacity and without sacrificing any of the scientific, social and economic aspects of the drug industry, the capacity of the consumers' associations will include the following items, to be carried into effect by specialized groups:

a) selection of drugs, so as to reduce the multiplicity of formulas with identical curative value;

b) promotion of purchases in connection with special conditions of manufacture, with a view to stripping prices of accretions due to propaganda, packaging, profits and remuneration for the use of patents;

c) establishment of selling prices;

d) control of value and destination of individual benefits financed from official resources.

134.23 It will be the task of those associations, moreover, to control the quality of drugs released for consumption, by means of periodical analyses of significant samples of products withdrawn from stocks.

14 - ACTIVITIES AIMED AT SERVICE IMPROVEMENT

141 - PLANNING

141.1 Planning activities should be performed permanently, in order to improve the national health policy, coordinate measures proposed in this program and the local health plans and take advantage of the experience derived from the application of the system within the scientific, economic and social framework of the country.

141.2 Whatever the level of direction or execution, planning will be an essential responsibility of the chief, who must conduct the work and

decide on the opportunity and feasibility of all measures suggested by assessors or coordinators of the activity.

141.3 The execution of planning tasks will be incumbent on:

a) professionals or experts of the health sector and representatives of professional associations or unions;

b) advisory units on planning next to the administration of health areas;

c) State advisory units on planning and coordination of local plans, next to the State Health Boards;

d) central advisory office on planning and coordination of plans next to the Minister of Health and the units making up the central structure of the Ministry.

141.4 Within the capacity bounds of the sector they assist, the agents of the planning system will, besides any other tasks assigned to them in specific instruments:

a) propose the revision or up-to-dating of any principles, rules or provisos about matter pertinent to the specific activity of the agent and with which he is conversant - applying only to the agents referred to in subdivision a) of paragraph 141.3.

b) promote the collection of data and their analysis and interpretation concerning the principles, rules and programs of the

health system - applying to the remaining agents.

141.5 As much as possible, all links between the assisted units and the agents of their planning systems will be restricted to each program under way, both with reference to the assignment of tasks and to remuneration.

142 - BIOMEDICAL RESEARCH

142.1 The chief aims of biomedical research are:

- to recognize and rate all problems of sanitary interest;

- to determine the extent, ways of treatment and prevention of diseases and their relation with biological and social conditions;

- to identify agents causing and transmitting diseases and suggest the means for their elimination.

142.2 The basic coordination of research activities carried out with financial, technical or administrative backing by the health system should be the responsibility of a collective body within the Ministry of Health and presided over by the Minister himself.

142.3 This central agency of biomedical research coordination will be in charge of:

a) the formulation of criteria for shaping priority research projects;

b) the approval of these projects and allocation of specific resources to them;

c) surveying research activities under way and taking steps to accelerate or, as the case may be, suppress projects;

d) following up research activities and disclosing their results.

142.4 Subordinated to the central research coordinating unit there will be an Executive Office to attend to administrative affairs.

142.5 For the proposal, direction or execution of research projects there may be collaboration of professionals or groups outside the public service.

143 - PERSONNEL TRAINING

143.1 The formation of high, middle and auxiliary level personnel should take heed of the real possibilities and needs of the services, to be appraised by the proper unit of the health sector. This unit, besides the technical, administrative and financial backing that can be given to the educational sector, will take steps to promote personnel training and any suppletory educational measures desirable.

143.2 The possibilities of personnel utilization are limited, chiefly on account of the total resources to be invested on the health sector (a maximum of 5% of the GNP, according to the economic experience of several countries).

143.3 Not until some time after the system starts functioning will it be possible to assess its personnel needs, since the low productivity and dispersion that characterize the present organization of health services make any forecast difficult and uncertain.

143.4 In spite of that, a few rules should be established even now, so that the preparation of professionals is made with the observance of criteria relevant to the problem in hand, instead of resulting from the fortuitous affluence of candidates to be tutored, or from the insufficiency and disproportion of training courses, opened without any consideration of the number of professionals needed and, consequently, causing investments to be distorted.

143.5 As regards the immediate assessment of personnel formation needs, attention should be given to a report of the Brazilian Center of Demographic Studies, of the IBGE Foundation, which establishes at 5% of the desired proportion of doctors in the population the annual production of new graduates, if that proportion is to remain unaltered for a population growth of 3% per year.

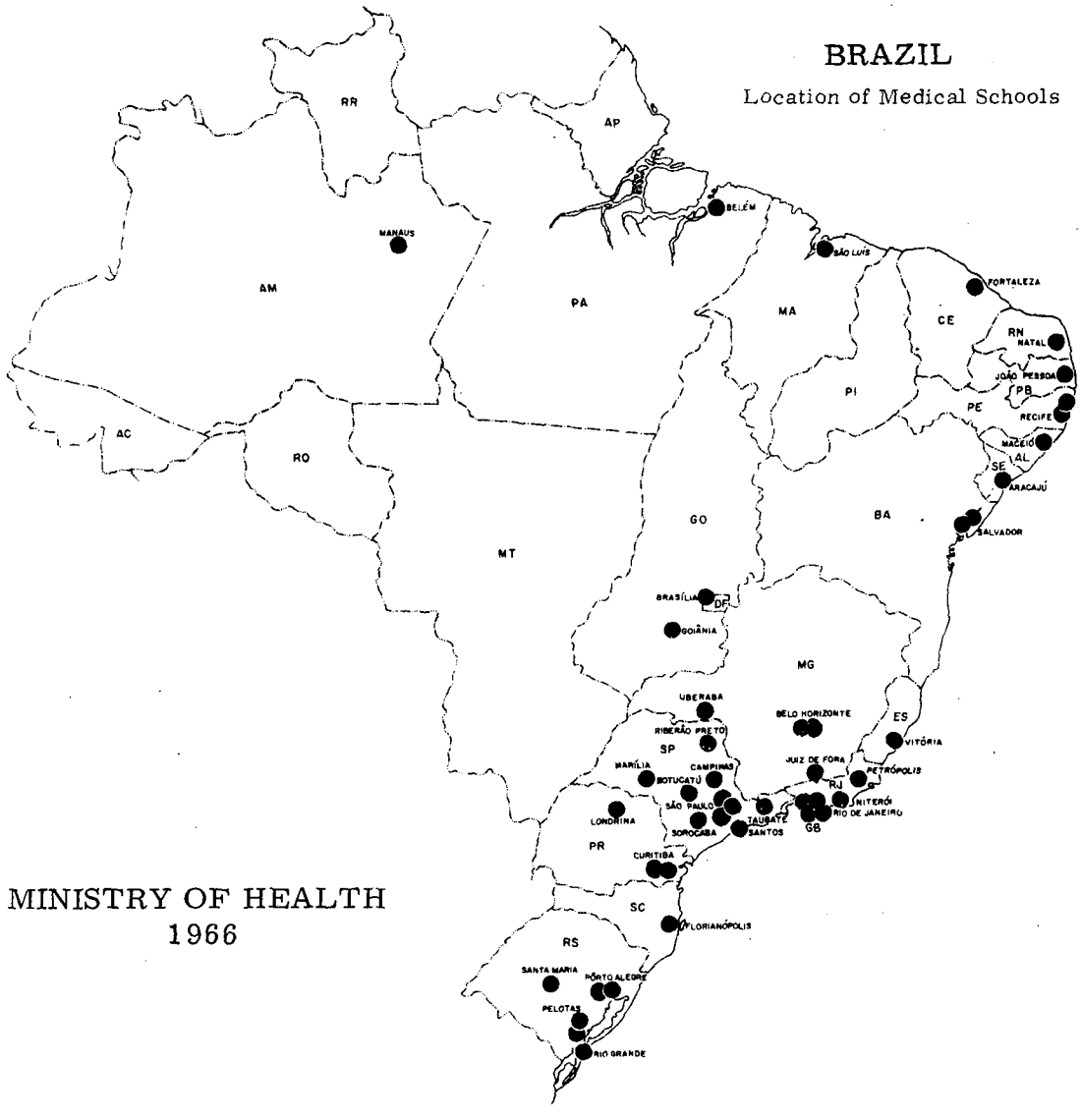
143.6 The following table illustrates the application of that percentage on the basis of various desirable proportions between the number of doctors and the population, the latter taken as equal to 88 million:

Inhabitants per doctor	Doctors needed	Shortage now	Annual number of medical gradutates necessary to maintain desired ratio of doctors to population after elimination of present shortage						
			(+) 1969	1970	1971	1972	1973	1974	1975
2,000	44,000	9,000	2,238	2,306	2,376	2,448	2,523	2,600	2,679
1,750	50,286	15,286	2,557	2,635	2,715	2,798	2,883	2,971	3,061
1,500	58,667	23,667	2,983	3,074	3,168	3,264	3,364	3,466	3,562

(+) Number of new graduates corresponds to 5,084% of total doctors desirable and grows at a rate of 3,045% per year.

BRAZIL

Location of Medical Schools



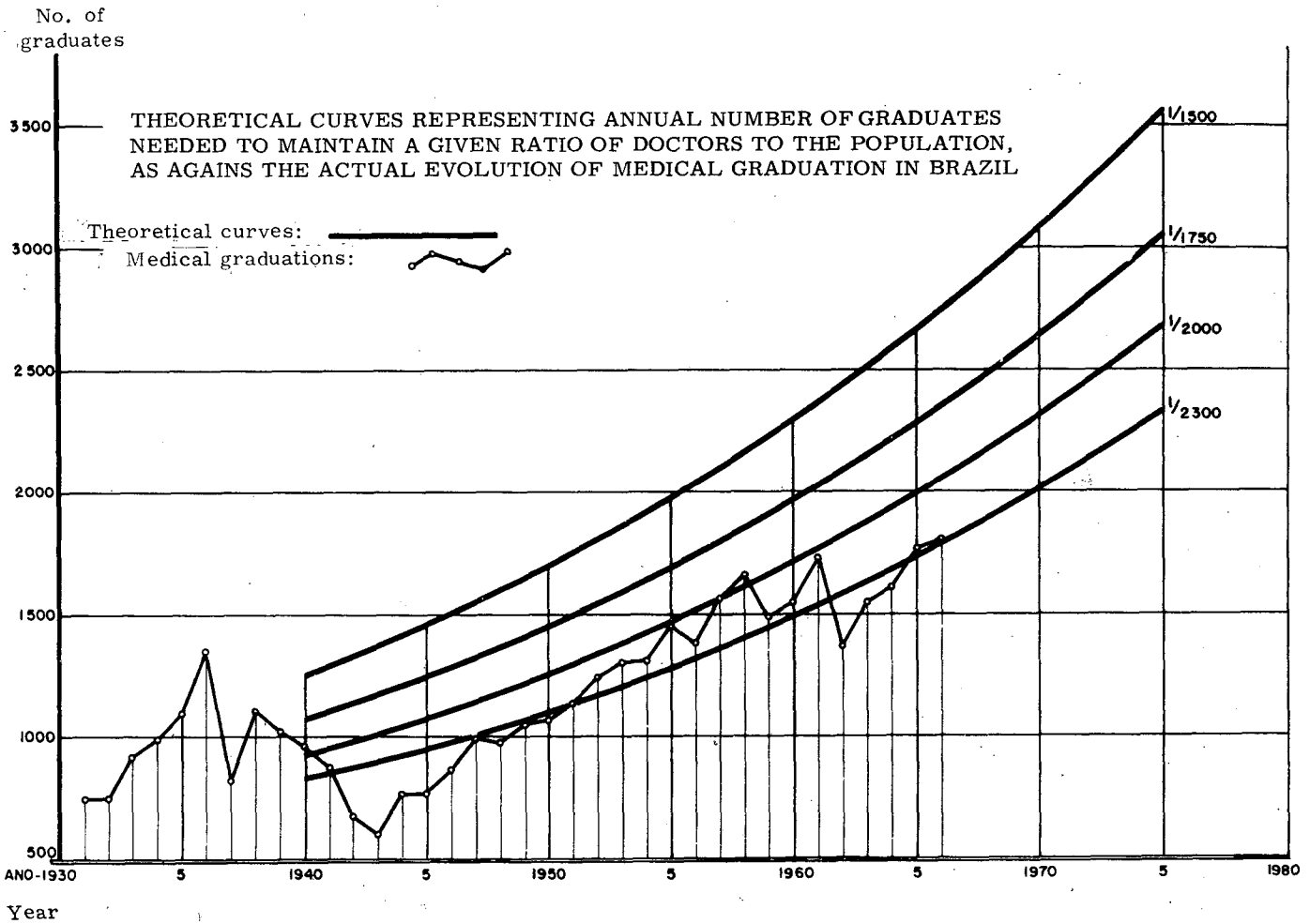
MINISTRY OF HEALTH
1966

MINISTRY OF HEALTH
1966

BRAZIL

Location of Nursing Schools

MINISTRY OF HEALTH
1966


No. of graduates
THEORETICAL CURVES REPRESENTING ANNUAL NUMBER OF GRADUATES NEEDED TO MAINTAIN A GIVEN RATIO OF DOCTORS TO THE POPULATION, AS AGAINS THE ACTUAL EVOLUTION OF MEDICAL GRADUATION IN BRAZIL
Theoretical curves:
Medical graduations:
1/1500
1/1750
1/2000
1/2300
3500
3000
2500
2000
1500
1000
500
ANO-1930
5
1940
5
1950
5
1960
5
1970
5
1980
Year

143.7 At present, the formation of new professionals, in all levels, is highly unsatisfactory. With reference to doctors, the number of graduates — 1,755 in 1965 and 1,791 in 1966 — is barely enough to maintain the present ratio of one doctor do 2,300 inhabitants.

143.8 The special unit referred to will assess the desirable ratios for each of the professions comprehended in the health sector and work up a program for the coordination of teaching activities in the next years.

144 - STATISTICS

144.1 Aiming specifically at supporting the sectors in charge of planning, biomedical research and personnel formation and training, the administrative reform will include in the structure of the Ministry of Health a special service comprised in the national system of statistics which should, among other tasks:

a) work up a program for the collection, processing and analysis of statistical data of interest to the health system;

b) promote and control the implementation of the statistical plan;

c) assemble documents and studies of interest to the system;

d) publish all documents, processed data and results of special statistical analyses or studies.

144.2 The Ministry of Health's statistical sector will plan, bring about and control the execution of statistical tasks, but execution proper should be left, whenever possible, to the responsibility of the national institution dealing with statistics, or committed contractually to specialized groups.

2 - FINANCING

21 - BASIC PRINCIPLES

211 The interference of public authorities with the activities relative to health protection and restoration aims at improving the people's productivity and welfare levels. In accordance with the provisos of this plan, such interference, as regards medical services, will be expressed in a series of measures meant to bring about a balanced distribution of material and human resources, in government participation in financing the system and in the control of prices, so as to render medical care accessible to the largest number.

212 In the previous chapter, which deals with the basic organization of the health system, suggestions are made as to administrative and executive methods conducive to the best setup and distribution of tasks. Here, provision is made for price control and the share of official resources to go into the financing of the system.

213 To this effect, three fundamental principles should be observed, or else this or any other assistance program will become impractical:

- price conditioning for low-income clients;

- direct participation of the client in the payment of medical care received;

- financing of medical services by the government according to criteria that will render it immune to variations in the individual behavior of professionals or groups.

22 - PRICE CONDITIONING

221 Small parts of the population have earnings that permit them to finance the medical services they may require, without the need of any official aid. Other parts, situated between destitution and the so-called middle class, depend on that assistance according to the degree of their purchasing power. This participation of the government in financing the system will take the form of subsidies, as explained in the next paragraphs.

222 However, the end in view will not be attained unless prices payable by the clients are conditioned to the very reason that called for the subsidies, that is, the insufficiency of the client's earnings. It is essential, therefore, to establish, with reference to the bulk of the population, how much will be charged for medical care received, according to basic price schedules. Rates of individual reduction varying with different income levels will be applied to the value items of these schedules.

223 It is expected, in principle, that the price of each service unit going to a client included in the official aid plan will correspond to that of the medical fee schedules in force at the INPS (or similar ones).

224 As a criterion for revising these values the rates and the time of official salary readjustments could be taken as valid.

231 The experience gathered from running medical assistance services leads to the conclusion that it is indispensable — for the feasibility and balance of any system – to restrict the dispensation of free medical care exclusively to those manifestly in a state of destitution. Recent studies carried out in Brazil and in other countries or by international organizations recommend the observance of this principle, which is considered as essential to the viability of any health restoration program.

232 This principle should prevail even when — as is the case in Brazil — the participation of the user in the costs has no economic expression (the contribution of about half the population will amount, in this country, to only 1% of the total investiment in medical care). But the requirement must be upheld, as a demand moderator.

233 Thus, even though more than half the population of Brazil should benefit from practically free medical service, it is of prime importance that all clients, except those living in a state of sheer poverty, should share in the cost of services by the disbursement of a sum representing a comparable financial burden to the poor and to the better-off.

234 It is expected that within a reasonable time about 80 million Brazilians may benefit from the health protection system. The remaining population, located in sparsely inhabited areas, will be reached only at a

much later stage. For purposes of cost sharing the population using the system will be divided into four classes. Class A comprises the destitute and those of very low earning capacity. In class B will be included the lower middle class. Class C will correspond to the middle class of a better economic standard. And D will refer to those with higher earnings. These segments are estimated as corresponding, respectively, to 40, 20, 12 and 8 million people.

235 The contribution of class A is expected to oscillate between total gratuity and 10% of the cost of services (3% on an average). Contributions from classes B and C are estimated, on an average, as 35% and 65% of the total cost, and class D, liable to charges with no restraint, will correspond to an average 150% of the official table of values.

236 According to the principle that establishes a relationship between the nature of the medical assistance and the economic stage of each community, the demand for medical care is smaller among population groups of lower purchasing power. Thus, according to the experience of the INPS and the FSESP[2], it has been estimated that the economically less favored sectors of the population take advantage of health protection facilities twice as often as do the poorer groups.

237 Though the establishment of final proportions won't be possible

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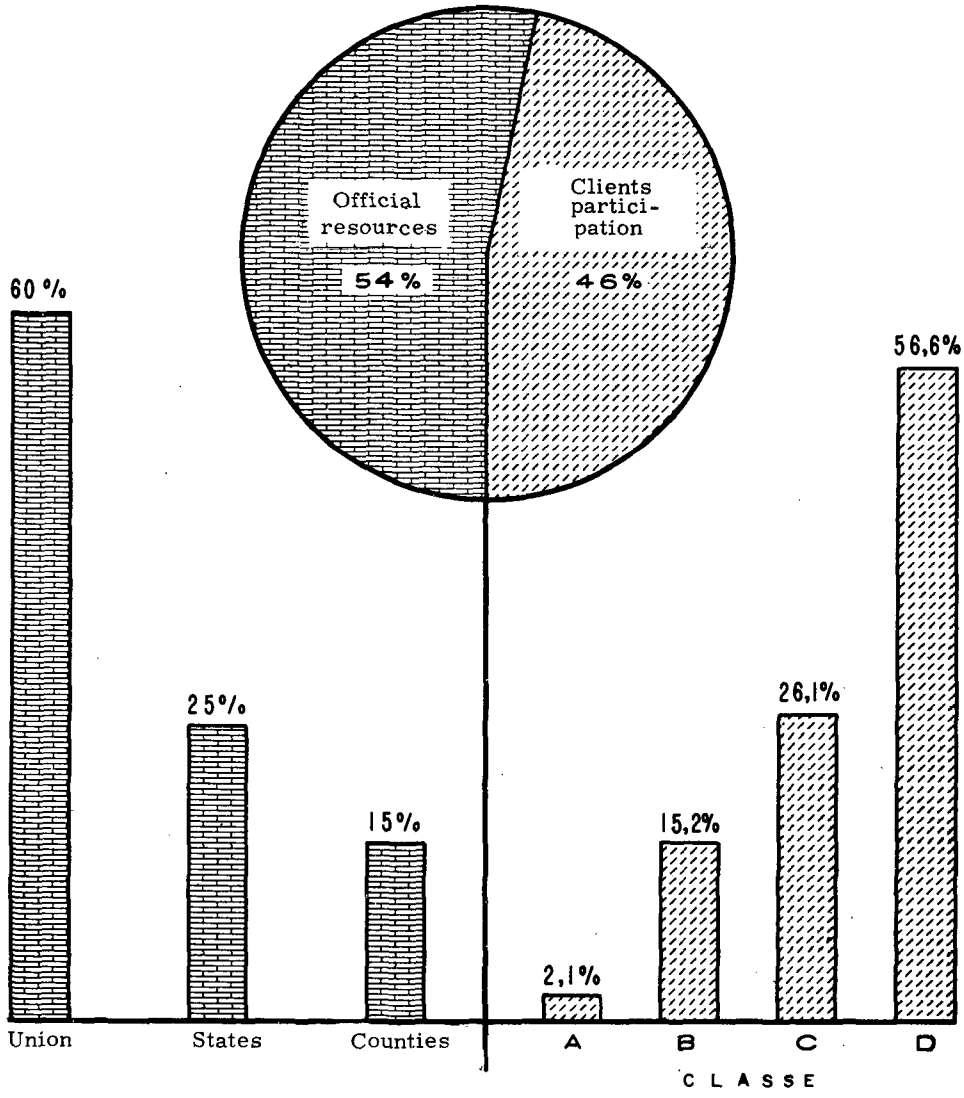
[2] National Social Security Institute and Public Health Services Foundation

until activities are actually started, it is expected, in principle, that contributions from the clientele will amount to a little over 46% of total maintenance costs, the larger share of financing going to official resources, plus the cost of collective health services, part of administrative expenses and investment on quality improvement.

MINISTRY OF HEALTH

FINANCING



Economic class	Number of people estimated to be attained by services	% of total population	Rate of utilization	Population weighted as to utilization rates		Average participation in paying for services %	Participation as to total cost (6) x (7) %
				Absolute numbers	% of total		
A	40,000,000	50.0	1	40,000,000	42.6	3	1.3
B	20,000,000	25.0	1	20,000,000	21.3	35	7.5
C	12,000,000	15.0	1.5	18,000,000	19.1	65	12.4
D	8,000,000	10.0	2	16,000,000	17.0	150	25.5
TOTAL	80,000,000	100.0	—	94,000,000	100.0	—	46.7

NOTE - Exclusive of 8,000,000 not served by the system.

238 Criteria for the classification of users and establishment of participation rates must be relative to each local planning in accordance with the rules set up by the Central Unit, so that the conditions of the various health areas are taken into account and experimentation may precede the formulation of final criteria.

239 If necessary, in order to lessen the financial burden on lower income classes, there might be a reduction of the present social security tax.

239.1 This reduction could be represented by a lowering of the discount rate on wages from 8 to 7%. Thus, the workers income would benefit by an amount equivalent to about four times the total participation in the system's financing from the lower income classes.

239.2 In the following calculations this deduction is not considered, as it will be dependent on criteria to be adopted during the system's installation period. Should the reduction be desirable, it is to be considered that the amount corresponding to 1% will be equivalent to approximately NCr$ 160,000,000.00 annually, to be spent by the Union, the States and the Municipalities as installation of the system proceeds.

24 - SUBSIDIES

241 - ESSENTIAL STIPULATION

241 As explained before, the gradual extension of the medical services to the population as a whole will require the adoption of reasonable price schedules for people of more limited resources, on the

basis of a fixed proportion between the charge and the earning capacity of the user. To compensate for this price conditioning imposed on professionals and medical groups, there will be an official subsidization of health services rendered.

241.2 It is essential, however, that under penalty of the system becoming unmanageable, payments incumbent on the government should not mount up on account of variations in the technical or financial behavior of professionals or medical groups. Previous experimentations indicate that when payment by the government is made according to variable indices deriving from differences in professional behavior or from the use of units very difficult to control the amounts payable grow too big and threaten to lead to insolvency.

241.3 This programming suggests a method for assessing the amount of subsidies payable by the government to doctors and medical groups. It will be possible for such a method to undergo change in local planning or at any time in the future, but it is essential that the adopted procedure should enable the amount of public resources needed to be known beforehand.

242 - HEALTH INVESTMENTS

242.1 Over-all health investments coming from client participation and official resources should correspond, after installation of the system, to about 4.5% of the GNP, as follows:

- Collective health protection	NCr$	600,000,000.00
- Doctors remuneration		850,000,000.00
- Hospitalization		1,060,000,000.00
- Diagnosis and treatment, and dentistry		500,000,000.00
- Drugs		600,000,000.00
- System improvement (planning, research, personnel training and statistics)		120,000,000.00
- Administration		150,000,000.00
	NCr$	3,880,000,000.00

242.11 The forecast on public health expenditure is based on governmental budget increased by 20% minus doctors remuneration, the total amount of which has been included in a single item.

242.12 The remuneration of doctors has been estimated at 1% of the GNP, in accordance with the conclusions of various national and international studies relative to the economy of the health sector.

242.13 The item relative to hospitalization, exclusive of doctors fees, corresponds to the occupation of 80% of existing beds all the year long, at an average of NCr$ 16.00 a day.

242.14 Equally exclusive of doctors and dentists fees (in the case of uncoordinated dental services), the amount to go for complementary services of diagnosis and treatment represents a preliminary estimate based on the available data, especially at the INPS, in proportions admissible in various studies on the financing of medical services. The cost

of excluded services, particularly dental services, should represent 0.5% of the GNP.

242.15 As regards medicines, there are no available data permiting of a more precise assessment. However, even if the proportion of their use is higher than is common in other countries, that assessment should not be higher than the amount estimated.

242.16 Sums going to training and administration are equivalent to about 7.5% of remaining expenditure and were estimated with observance of the limitations imposed by the sector's economy.

243 - OVER-ALL SUBSIDIES

243.1 The total amount of subsidies to be allocated to health areas should be equivalent do NCr$ 2,000,000,000.00, after completion of installation and attainment of full operation level.

243.2 That amount includes items corresponding to 54% (see paragraph 237) of investments relative to doctors remuneration, hospitalization and complementary services, to 70% of medicines, to 50% of training expenses and to 60% of administrative costs, the latter two items comprising both central and State expenses. Moreover, over-all subsidies will include 8% of clients participation, equivalent to lost amounts in loans granted to them. Subsidies are distributed as follows:

- 54% of investments relative to doctors remuneration, hospitalization and complementary services	NCr$ 1,301,400,000.00
- 70% of medicines	420,000,000.00
- 50% of training expenses	60,000,000.00
- 60% of administrative costs	90,000,000.00
Lost loan returns	100,000,000.00
	NCr$ 1,971,400,000.00

244 - SUBSIDIZATION PER HEALTH AREAS AND SERVICES

244.1 Subsidies will be stipulated relatively to each health area, whose administration will have the capacity to subsidize the professionals and medical groups that comprise it. The amount of subsidies will be assessed according to the criteria that follow or to any other criteria that may be considered as desirable, provided they offer a just retribution and the principle is observed of the inelasticity of official resources, as referred in paragraph 241.

244.2 The total subsidy going to each area will correspond to the sum of all items relative to its health services, i.e., doctors remuneration, hospitalization, complementary services, medicines, training and administration. Calculation criteria will be found in Appendix 244.2.

251 The system will be provided with resources for the granting of loans to finance:

- excessive health outlays borne by clients of meager resources;

- doctors who move to another city or buy new installations;

- hospital organizations, to construct new buildings or expand existing ones;

- medical or pharmaceutical services, to carry out programs of interest to the system.

251.1 In principle, by "excessive health outlay" is to be understood a burden representing, within a month, more than 20% of the family's income.

251.2 The amortization of loans is to be effected with monetary correction and accrued by an administration rate.

251.3 In the instance of loans to clients, the monthly amortization item and other charges should not exceed 10% of the borrower's family income.

252 Subsidies may be supplemented by about 8% of over-all client participation in the system's financing, to make up for any default in the repayment of loans.

253 In connection with each health area, the amount referred to in the previous paragraph - to come chiefly from budgetary allotments - should be proportional to the local coefficients indicated in paragraph 411.1 of Appendix 244.2.

26 - AUDITING

Inspection methods will tend to keep program deviation within reasonable limits prescribed by central or State regulations. There will be no need, therefore, for any of those systems proposing to prevent altogether the occurrence of aberrations. Along these lines, local control will obey rules to be established in accordance with the principles of statistical control, which include the use of the technique of sampling.

3 - RESOURCES

31 - CONSIDERATIONS

311 The annual amount of over-all investment in the health sector has been estimated at about NCr$ 3,880,000.00 (paragraph 242.1), to be financed partly from the direct participation of clients (NCr$ 1,188,600,000.00) and partly from public resources (NCr$ 2,691,400,000.00), i.e., about one third from users and two thirds from the government.

311.1 These proportions express a cost distribution in actual correspondence with the official budgets. As two thirds of the population lack the means to pay for the medical care they need, it should be incumbent on the government, in view of the sector's priority, to invest an amount equivalent to that insufficiency.

311.2 Moreover, the amount to be invested corresponds to the desirable percentage of the government's budgetary expenditure. As a matter of fact, the total burden would represent less than 15% of the federal, State and municipal budget expenses. And 15% would correspond to the mean investment in other countries on a similar stage of development to that of Brazil.

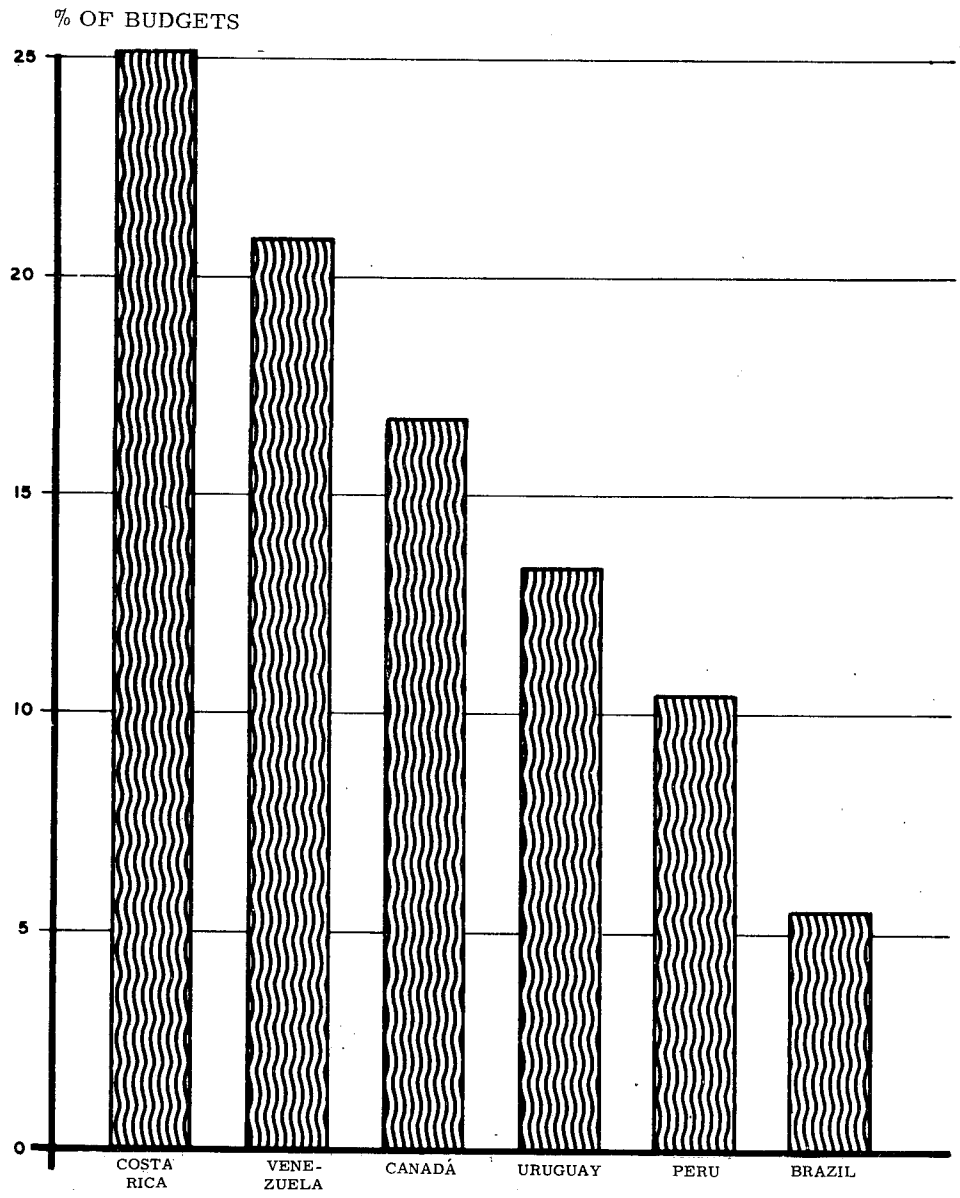
MEAN INVESTMENTS IN THE HEALTH SECTOR IN VARIOUS AMERICAN COUNTRIES FROM 1962 THROUGH 1965

	%
British Guiana	26.0
Costa Rica	25.1
Puerto Rico	22.3
Venezuela	20.7
Guatemala	18.0
El Salvador	17.8
Canada	16.7
Panama	16.6
Haiti	13.9
Uruguay	13.3
Honduras	12.0
Trinidad	11.3
Peru	10.4
Colombia	10.3
Cuba	9.7
Argentina	5.7
Brazil	5.5

Source: Pan-American Health Organization.

MINISTRY OF HEALTH

INVESTMENTS IN THE HEALTH SECTOR
IN SELECTED AMERICAN COUNTRIES
1962-65



311.3 Monetary correction to permit this percentage of official investments to become feasible would, however, be impractical. Therefore, notwithstanding the adoption of measures leading, in the near future, to a fairer redistribution of public resources, it will be necessary to lessen, in the meantime, the government's financial burden.

311.4 This lessening is to be effected through utilization of part of the social security contributions now going to medical care. These resources will allow for a reduction of the governmental burden, instead of being used, as would be natural, as part of the cost affecting the clientele, although for the latter the mean charge should be less than at present.

311.5 That part of social security contributions, which at the right time will be officially labeled as a contribution to compulsory health insurance, is comprised in the total annual collection of social security contributions as equivalent to a little below 850 milion new cruzeiros (4% of the payroll plus the Rural Fund tax).

The compulsory character of this contribution, when extended to the whole population, will cause receipts from this source to rise to at least 900 million new cruzeiros.

311.6 In the not very far future, these 900 million new cruzeiros - or 750 million if the measure of paragraph 239 is adopted - will bring about a reduction in the direct participation of users. But until then they will have to contribute in order to lighten the government's burden.

311.7 It should be mentioned here that anyhow the proposed financial program deals uniformly with the whole population, in extending the social security tax to all beneficiaries, and at the same time places at their disposal more and better medical resources, in view of the larger public investment in the sector and adequate organization of health services.

312 Out of the total value to be financed by the government, NCr$ 600,000,000.00 will go to collective health protection. About 80% of that amount is already comprised in the official budgets. The expected increase and the investment program are to be dealt with in a separate document on public health, still in the making. This paper, therefore, includes only sources of money for the financing of medical services, which amounts to NCr$ 1,971,400,000.00.

32 - PUBLIC RESOURCES FOR MEDICAL SERVICES

321 It is admitted that the medical care expenses to be defrayed by the government - deductible, in the next few years, from the value of social insurance - should be distributed among the Union, the States and the Municipalities at the rate of 60, 25 and 15%, respectively. Thus, the total value of said investment will be distributed as follows:

- Compulsory health insurance (present contribution to social security, extension of social security to remainder of population and rural fund)	NCr$ 900,000,000.00(1)
- Federal budgetary participation	660,000,000.00
- States' participation	275,000,000.00
- Municipal participation	165,000,000.00
	2,000,000,000.00

(See paragraph 239)

322 With reference to the participation of the Union, the States and the Municipalities, it is to be noted that certainly over 50% of the expected investment is comprised in the present budgetary allocations.

322.1 The official expenditure on medical services permits the federal contribution to individual health to be estimated this year at over 400 million new cruzeiros, of which 200 million are payable as social secutiry, more than 100 million through the Ministry of Health, as subsidies and incentives for doctors to go to the interior, and just as much in several allocations, such as those going to SUDENE, IPASE, SUDEPE, LBA and SASSE. The new charges will, in the next few years, equal just about 260 million, to be raised according to the progression adopted.

322.2 As regards the States and Municipalities, a significant percentage of their financial burden is already being spent by them in various assistance programs. The increase in their participation could be easily borne by them if it came from the resources provided to those units through

the redistribution of income tax and several other taxes (industrial, territorial and on lubricants, fuels, electric energy and minerals). It is estimated that the new health charges on States and municipalities will not exceed 10% of the product of those taxes, and that, as in the case of the federal contribution, the burden will be relatively light and occur gradually along a number of years.

33 - TRANSITIONAL STAGE

331 Although only a small amount of new resources will be required, obstacles may be expected to block the way to an immediate introduction of the health system, on account of various budgetary limitations and of the length of time necessary to adapt existing material and human resources to the requirements of the new system.

332 In order to by-pass these difficulties - depending on their bulk at the time local plans are drawn and the systems started in health areas - priorities may be established so as to reduce the immediate appropriation of resources.

333 Except in the case of circumstances calling for special solutions, the following order of priority could be adopted as regards the introduction of health services:

- hospitalization in cases requiring urgent treatment;

- complementary medical services connected with diagnosis

and treatment;

- removal of dental foci;

- other medical services;

- pharmaceutical aid.

34 - ATTENUATION OF DIFFERENCES

The percentages of participation incident on the States and Municipalities are indicative of the mean values to be obtained. Indeed, State and county contributions should be proportional to local availabilities, any insufficiencies being compensated for by the redistribution of resources coming from the health insurance scheme and from the Government.

4 - FOUNDATION

41 - NATIONAL HEALTH DEPARTMENT

411 The establishment of the health system will have as its initial step the creation of the national department, as part of the structure of the Ministry of Health. In this preliminary stage, until the Ministry undergoes its administrative reform, the central department will be provisionally organized.

411.1 The national health department, besides its natural functions, will carry out the following preliminary tasks:

- classify all health areas in the sequential order the system is to start running;
- get in touch with public agencies included in the health programs;
- collect data relative to the health areas;
- coordinate local plans;
- sign conventions with public agencies;
- bring about the installation of local health units;
- aid the installation of the system;
- coordinate the organization and methods system.

411.2 Furthermore, simultaneously with the steps listed in the previous paragraph, it will be incumbent on the national department to take all measures connected with the receipt and distribution of resources for the execution of the assistance program, its administrative organization

and the drafting of any required legislation to be enacted by the Executive.

42 - SURVEYS

The working up of local health plans will be based on surveys or inquiries along the line prescribed in the forms and instructions at Appendix 42.

43 - INTEGRATION OF PERSONNEL AND PUBLIC AGENCIES

431 According to the structure of local plans, all doctors and dentists now serving the government will be placed, on a voluntary basis, at the disposal of the new system.

431.1 All professionals transfered to the system will continue to be paid by the government their full salaries as part of the official subsidies already referred to; moreover, the government will make them secure in the enjoyment of all their rights as public servants.

432 Equally in view of the local plan structure, there will be the transfer to it of all medical units now running as part of the public administration machine.

433 The management of the medical units referred to in the preceding paragraph will - with due observance of legal provisions and local plan criteria - be transfered to private groups through the leasing of real property and equipment, the sale of temporary material in stock and personnel transfer.

433.1 Real estate and installations are to be leased by a specified monthly rent calculated on the basis of their original cost.

433.2 All equipment and permanent materiel will be leased on the basis of their annual depreciation.

433.3 The temporary material in stock may be sold for its original cost, if necessary by monthly installments.

434 Nonmedical personnel in the leased units may be transfered to the private administration that will run them.

434.1 The government will continue to pay this transfered personnel their full salaries and make them secure in the enjoyment of all their rights as public servants.

434.11 The lessee of such units will be expected to supplement, if necessary, using his own resources, the remuneration of the transfered personnel.

435. The rents, sale prices and personnel salaries will represent part of the government's contribution to the health system and will be compensated for in the amount of subsidies going officially to the system from governmental resources.

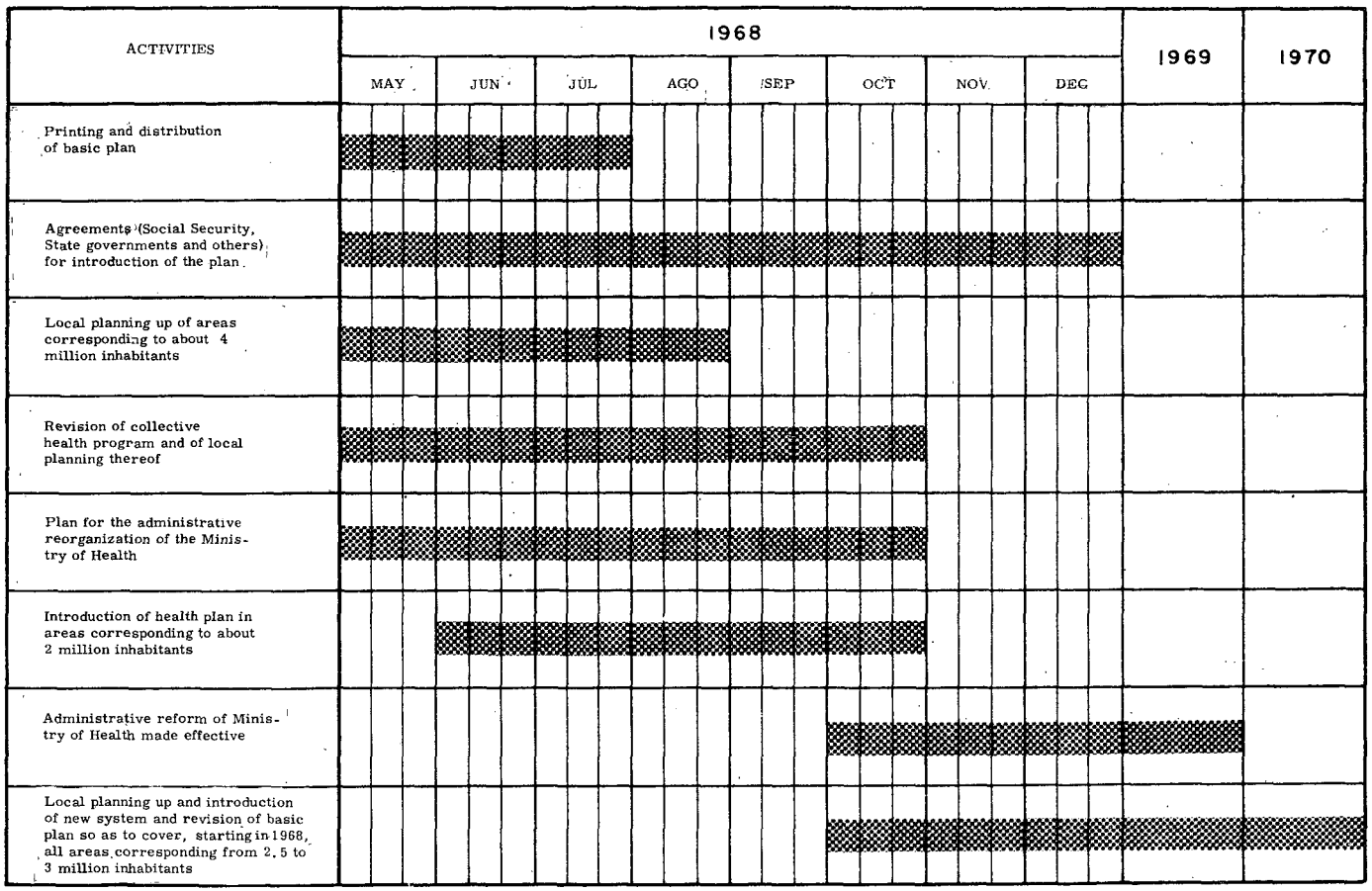
436 Lessees will be allowed to send back to the government, at any time, public servants no longer needed by the system.

44 - TIME LIMITS

The subsequent execution of the national health program will observe the following time limits:

MINISTRY OF HEALTH

PLAN FOR THE COORDINATION OF ACTIVITIES RELATIVE TO HEALTH PROTECTION AND RESTORATION – 1968/1970



5 - NATIONAL HEALTH LAW

The task of planning up the national health system and the introduction of the services are being followed by the Legislative branch of government through a Commission of Deputies specially appointed by the Health Committee of the Federal Chamber. This planning, to be revised in the light of the tests to which the system will be put, will furnish important data for the preparation of a national health law.

APPENDIXES

APPENDIX (to paragraph 112)

Location, number of municipalities and population of each health area.

Physiographic Regions	States	Health Areas	No. of Municipalities in 1967	Estimated population on July 1, 1967
North	Rondônia	Pôrto Velho	3	124,265
	Amazonas	Manaus	53	1,106,609
	Pará	Belém	84	1,814,643
		Santarém	10	257,789
	Amapá	Macapá	7	137,631
Northeast	Maranhão	São Luís	56	1,501,520
		Bacabal	22	741,995
	Piauí	Teresina	70	1,152,597
		Parnaíba	18	405,511
		Flôriano	48	434,751
	Ceará	Fortaleza	57	2,094,851
		Sobral	40	807,374
		Iguatu	15	282,537
		Crato - Juàzeiro do Norte	38	690,125
	Rio Grande do Norte	Natal	78	781,109
		Mossoró	46	311,196
	Paraíba	João Pessoa	52	922,531
		Campina Grande	71	1,451,094
		Patos	78	662,597
	Pernambuco	Recife	57	2,655,217
		Caruaru	32	1,697,214
		Garanhuns	22	401,517
		Arcoverde	40	539,708
	Alagoas	Maceió	45	1,353,754
		Penedo	21	206,429
		Palmeira dos Índios	33	414,197

Physiographic Regions	States	Health Areas	No. of Municipalities in 1967	Estimated population on July 1, 1967
East	Sergipe	Aracaju	76	847,726
		Salvador	41	1,607,918
		Alagoinhas	25	426,309
		Feira de Santana	59	1,067,625
		Jacobina	23	344,113
		Senhor do Bonfim	9	195,547
	Bahia-Pernambuco	Juazeiro-Petrolina	32	481,921
	Bahia	Ilhéus-Itabuna	36	732,899
		Vitória da Conquista	57	1,072,595
		Jequié	28	453,458
	Minas Gerais	Belo Horizonte	207	3,518,595
		Montes Claros	44	949,498
		Patos de Minas	17	300,384
		Divinópolis	44	526,493
		Barbacena	32	314,518
		Juiz de Fora	55	766,248
		Muriaé	33	524,176
		Governador Valadares	52	1,153,944
		Teófilo Otoni	51	1,194,531
		Varginha	45	519,405
		Poços de Caldas	10	148,180
		Uberaba	27	355,164
		Uberlândia	59	800,753
		Ituiutaba	10	159,573
	Espírito Santo	Vitória	23	730,555
		Cachoeiro do Itapemirim	23	509,136
		Colatina	9	634,191

Physiographic Regions	States	Health Areas	No. of Municipalities in 1967	Estimated population on July 1, 1967
	Rio de Janeiro	Petrópolis	4	301,531
		Nova Friburgo	9	223,533
		Barra Mansa - V. Redonda	18	530,455
		Campos	14	857,552
		Guanabara	27	6,484,896
South	São Paulo	Grande São Paulo	38	6,895,538
		São Paulo - Exterior	40	1,039,114
		Vale do Paraíba	32	703,810
		Sorocaba	59	986,450
		Campinas	67	1,521,658
		Ribeirão Prêto	80	1,389,051
		Bauru	84	1,353,484
		São José do Rio Prêto	85	1,068,870
		Araçatuba	37	529,074
		Presidente Prudente	50	859,140
	Paraná	Curitiba	40	1,287,822
	Paraná - São Paulo	Jacarèzinho - Ourinhos	39	683,864
	Paraná	Londrina	57	1,654,496
		Maringá	75	1,653,202
		Ponta Grossa	38	1,073,401
		União da Vitória		
		Pôrto União	10	150,980
		Pato Branco	28	401,288
		Cascavel	14	166,151
		Umuarama	12	219,602

Physiographic Regions	States	Health Areas	No. of Municipalities in 1967	Estimated population on July 1, 1967
	Santa Catarina	Florianópolis	23	317,458
		Blumenau	43	549,597
		Joinvile	11	210,322
		Lajes	12	255,197
		Joaçaba - Herval D'Oeste	33	330,402
		Chapecó	30	271,240
		Tubarão	32	484,268
	Rio Grande do Sul	Pôrto Alegre	52	2,124,347
		Caxias do Sul	27	562,845
		Passo Fundo	27	475,573
		Erechim	22	303,326
		Santa Cruz do Sul	8	285,710
		Cruz Alta	14	239,498
		Ijuí	13	220,854
		Santo Ângelo	15	279,412
		Santa Rosa	13	224,133
		Cachoeira Sul	6	174,390
		Santa Maria	15	413,864
		Pelotas - Rio Grande	12	564,284
		Bagé	3	133,251
		Santana do Livramento	2	95,876
		Alegrete	2	90,458
		Uruguaiana	3	118,083
West (Center)	Mato Grosso	Corumbá	2	89,133
		Campo Grande	37	589,309
		Cuiabá	18	304,402
	Goiás	Goiânia	56	794,151
		Anápolis	90	1,038,048
	Distrito Federal	Brasília	51	801,818

NOTE: The setting up of health areas in the State of São Paulo followed the provisions of State Decree nº 48,163, of July 3, 1967.

APPENDIX (to paragraph 123)

Memorandum on the constitution and functioning of local health units.

PURPOSE AND CHARACTERISTICS

1 To manage, coordinate and control the local activities of the national health system there will be created nonprofit civil societies with jurisdiction over a given health area and community participation in them, to be known as Health Communities.

1.1 Each Health Community will have its main office in a city of the respective health area, as suggested by the State Health Unit.

1.2 The societies will last indefinitely.

1.3 The Community will be regulated by specific legislation and by a Statute drawn up in accordance with the provisions of this plan and approved by the State Health Unit.

2 To the attainment of its ends the Community will discharge, in principle, the following functions:

I — on the administrative level:

a) implement or bring about the implementation of the national health policy, measures aimed at the coordination of health protection activities and provisions embodied in the specific local plan;

b) suggest to the State Health Unit any change in the measures and provisions referred to in the preceding item, or a revision of its Statute;

c) attend to administrative and technical services essential to the execution of its functions;

d) observe the rules set forth by the planning, coordination and control units of the national health system;

e) bring about the inclusion, in the structure of the local plan, of the professionals and medical groups who will, as executive units, operate in the health area under its jurisdiction;

f) foster the development of activities relative to individual or collective health in the corresponding health area;

II — on the financial level:

g) receive subsidies intended for its specific health area and pay the executive units for their services;

h) obtain funds from different sources for local activities relative to individual or collective health;

i) invest the available financial resources of the Community, with a view to meet local interests as règards individual or collective health, maintain the real value of the society's assets and obtain satisfactory returns from these investments;

j) grant loans, within its financial capacity, for the installation of professionals ou groups, the expansion of existing installations or the financing of the part of medical and hospital fees payable by the clients;

k) draw up and approve the annual program budget of the society;

l) render accounts to the proper authorities as to the economic, financial and assets administration of the society;

III — on the control level:

m) establish controls as regards the subsidies going to these professionals and groups;

n) apply penalties on its members;

IV — on the guidance level:

o) instruct the population of the health area as to the medical and hospital resources that can be made available to them;

p) boost de adoption of various systems of financing medical fees and hospital expenses borne by the clients;

q) bring about the use of new administrative techniques for the development of the executive units;

r) take steps towards the improvement and training of all personnel comprised in the local structure of the national health system.

2.1 The Community will, moreover, carry out any tasks assigned to it in the national health system's regulations in the field of pharmaceutical assistance, collective health, research and statistics.

MEMBERSHIP

3 Membership in the Community will include:

I — on a compulsory basis all professionals and medical groups making up the local structure of the national health system;

II — on a voluntary basis:

a) the Municipalities comprised in the health area under the Community's jurisdiction;

b) autonomous government agencies, public concerns and joint societies operating in the area;

c) nonprofit private bodies recognized as public-service corporations;

e) natural persons who have distinguished themselves for activities in the field of health.

3.1 Members will by right:

a) take part in the General Meeting, discuss the items in the agenda and pass judgment on them;

b) vote and be voted for the holding of administrative positions, except those restricted to the government's representatives;

c) suggest measures on behalf of individual or collective health or of the Community;

d) request the summoning of a General Meeting.

3.2 Members will by duty:

a) submit to all legal and statutory provisions;

b) fulfill the conditions adhered to upon entering the local structure of the national health system (applying to compulsory members);

c) make amends for damages caused to the Community.

3.3 Membership will be canceled:

a) upon application for withdrawal;

b) as a penalty;

c) in the case of natural persons who have forfeited their civil rights and can no longer dispose freely of their possessions;

d) in the case of juristic persons who are closing out.

3.4 Members will be liable to the following penalties:

a) fine;

b) exclusion.

3.41 Fines will vary in amount from one to ten minimum salaries, according to the nature of the fault, and will be imposed in the case of nonfulfillment of the duties referred to in paragraph 3.2.

3.42 The penalty of exclusion will be imposed for:

a) continued neglect of duties;

b) serious offense;

c) practice of an illegal act;

d) arrearage as to the payment of contributions.

SOCIAL UNITS

4 The running of the Community will be achieved through the following social units:

a) General Meeting;

b) Guidance Council;

c) Executive Direction;

d) Control Council.

GENERAL MEETING

4.1 The General Meeting is the supreme unit of the Community,

with authority to solve all matters and affairs concerning the society, as well as to reach decisions on behalf of its interests. It will, specifically:

a) elect and dismiss the members of the Guidance and Control Councils;

b) decide on the annual balance, report and accounting presented by the Executive Direction and submitted to the Control Council.

4.11 The General Meeting may be ordinary or extraordinary and will be summoned by the President of the Guidance Council, by his own initiative or by request of the Council itself, the Executive Direction or any members representing, numerically, at least 20% of the social body.

4.12 The ordinary General Meeting will convene within the first four months of the civil year, for the purposes stated in items a and b of paragraph 4.1, and the extraordinary General Meetings at any time they are summoned to see to special affairs and matters.

4.13 General Meetings will be summoned by public notice describing all subjects to be decided upon, which will be exhibited in the society's main office and published in the Official Journal and in the local press, at least ten days ahead of time. Members who are public corporations will, in addition, be summoned by official letter.

4.14 General Meetings will convene at first call with at least two thirds of members present, and at second call with any number present, and will proceed by majority vote.

4.15 At the General Meeting, members who are natural persons will be assured one vote, and those who are juristic persons three votes.

4.16 The Executive Direction will have the power to appeal, through any of its members, to the State Health Unit, against any General Meeting resolution on financial matters taken as harmful to the interests of the society, in which case the resolution's effect will stop pending decision of the appeal.

4.17 Members will be barred from voting when:

a) admitted into the society after the General Meeting has been summoned;

b) involved in legal proceedings for disciplinary reasons;

c) in arrears with the society.

GUIDANCE COUNCIL

4.2 The Guidance Council is the unit in charge of supervising and checking the activities of the Community, and as such it will specifically:

a) approve the annual budget and the working program for that period of time;

b) try to find sources of supplementary financial or material resources;

c) deliberate on administrative expenses surpassing the limit of 1,000 minimum salaries;

d) decide on the investment of available financial resources;

e) make regulations concerning the granting of loans;

f) decide about the purchase of landed property or the conveyance of any kind of property;

g) examine monthly statements, in order to follow the economic and financial situation of the society;

h) propose to the suitable State Health Unit the substitution of any member of the Executive Direction, giving the grounds for it;

i) decide about the admission or exclusion of members, and about the imposition of penalties;

j) suspend the execution of any regulation enacted by the Executive Direction, if taken to be detrimental to the interests of the society, and appeal, "ex officio", to the State Health Unit;

k) adopt solutions not expressly provided for in the Statutes, submitting them to the approval of the State Health Unit;

l) make up the internal rule of its sessions.

4.21 The Council is to be formed, according to the size and complexity of the area, by six to ten members elected by the General Meeting for a period of two years with provision for reelection, at least two of them doctors who are compulsory members, two representing the municipalities and two chosen among persons of unblemished reputation preferably working in the social or financial field of activity.

4.211 Medical matters will be reported exclusively by doctors.

4.22 The Council's ordinary meetings will take place twice a month, and the extraordinary ones whenever necessary, and they will decide by majority of votes with the presence of at least 2/3 of all members.

4.23 The President of the Council, elected for a period of one year, will cast quality and deciding votes.

4.24 Members of the Council will be replaced, in their absence and in cases of vacancy, by members of the Council's own choice, who will discharge functions until the next General Meeting.

EXECUTIVE DIRECTION

4.3 The Executive Direction will manage the affairs of the society in conformity with the provisions of its Internal Rule and perform the duties referred to in paragraph 2, except those incumbent on the General Meeting and the Guidance Council.

4.31 The Direction will comprise:

a) 1 Superintendent Director appointed by the Minister of Health;

b) 1 Administrative Director appointed by the INPS;

c) 1 Financi al Director appointed by the State Secretariat for Health;

d) one or two more Directors, according to the size and complexity of the area, the first to be appointed by the chief municipality and the second by the most populous municipality in the corresponding health area.

4.311 Members of the Executive Direction will be sworn in by the President of the Guidance Control.

4.32 The Internal Rule will decide about:

a) matters requiring the Direction's audience;

b) the way for the Directors to take joint action;

c) the specific duties of the Director;

d) which Directors will have the power to represent the society actively or passively, in court or outside it;

e) the structure of units placed under the Direction.

4.321 The Internal Rule will be approved by the State Health Unit.

4.33 In all cases of temporary absence or vacancy, until the appointment of a new titular, the Superintendent Director will be replaced by the Administrative Director, and each of the other Directors by another component of the Executive Direction, chosen by the Superintendent Director.

CONTROL COUNCIL

4.4 The Control Council is the unit taking care of the economic and administrative management, and as such it will:

a) follow the budget's execution and verify, through the technique of sampling, all accounting records and their accuracy;

b) verify the exactness of statements by confronting them with receipt and expenditure documents or vouchers;

c) pass judgment on the rendering of accounts, annual balance, report and inventory presented by the Executive Direction;

d) examine any contracts as to their legitimacy;

e) apply to the Superintendent Director for information and special measures essential to the discharge of its duties and give him notice for the correction of any anomalies, protesting to the Guidance Council in the case of noncompliance;

f) check all valuables and other goods deposited in the Treasury;

g) approve the internal rule of its sessions;

4.41 The Control Council will be made up of 3 members and their respective substitutes chosen by the General Meeting among persons of unblemished reputation.

FINANCIAL RESOURCES

5 The society's financial resources will come from:

a) subsidies from the government;

b) members contributions;

c) interests and monetary correction on loans;

d) gifts and legacies;

e) special credits by the government to improve or expand medical resources in the corresponding health area;

f) fines imposed on the executive units;

g) fortuitous receipts.

5.1 The society will retain from its subsidies, to finance administrative costs, a percentage previously established by the supervisory units of the system.

ECONOMIC AND FINANCIAL MANAGEMENT

6 The social year will coincide with the civil year. At the close of the year, a balance will be drawn of the society's assets and liabilities.

6.1 The net result shown in the balance will go into a Loans Fund.

6.2 Investment of the Loans Fund will conform to the provisions of paragraph 2, subdivision j.

SUNDRY PROVISIONS

7 The following items will be subordinate to rules issuing from the system's Central Unit:

a) remuneration of members of the Guidance and Control Councils and of the Executive Direction;

b) juridical regime of the personnel;

c) personnel cadre and its salary schedule;

d) when and how to dissolve the society.

8 The government will contribute to the functioning of the Community by supplying it with personnel, premises, installations and equipment as required.

APPENDIX (to paragraph 131.5)

Technical note on doctor distribution.

Given an availability, in the country, of medical services corresponding to valuation M, they should be ideally distributed among the group of areas 1, 2, ..., n to be comprised, items M_1, M_2 .... M_n being such that

$$M_1 + M_2 \ldots + M_n = M$$

As a matter of course, the ideal distribution among the various areas will depend on respective coefficients defining their fractions, i.e.:

$$M_1 = L_1 M$$

$$M_2 = L_2 M$$

$$\vdots \qquad \vdots$$

$$M_n = L_n M$$

Coefficients L_1 . L_2 . ..., L_n are obviously such that

$$L_1 + L_2 + \ldots + L_n = 1$$

Granting that the coefficient of each area will grow in the same measure as its population P and the latter's productivity C, we shall have for these various areas

$$\begin{aligned} L_2 &\propto P_2\ C_2 \\ &\vdots \quad\quad \vdots \\ L_n &\propto P_n\ C_n \end{aligned}$$

Since productivity C for each area is conditioned by the gross income R of population P according to

$$C_1 = \frac{R_1}{P_1}$$

$$C_2 = \frac{R_2}{P_2}$$

$$\vdots \quad\quad \vdots$$

$$C_n = \frac{R_n}{P_n}$$

it follows that

$$L_1 \propto P_1 \times \frac{R_1}{P_1} \quad \text{or} \quad L_1 \propto R_1$$

$$L_2 \propto P_2 \times \frac{R_2}{P_2} \quad \text{or} \quad L_2 \propto R_2$$

$$\vdots \qquad \vdots \qquad \vdots \qquad \vdots$$

$$L_n \propto P_n \times \frac{R_n}{P_n} \quad \text{or} \quad L_n \propto R_n$$

It could of course have been said from the start that for a distribution of resources contingent upon the degree of wealth of each area it would suffice to establish the respective coefficients L as a function of these indices, as for instance gross income R, through the general proportionality

$$L \propto R$$

as seen above.

This would mean, however, the acceptance of just the influence of gross incomes, independently of the populations that create them and of the corresponding productivities.

There would be here the great inconvenience of not taking into account that socio-economic conditions in direct relationship with productivity have an influence on the demand for medical services.

Another great inconvenience would be the absence of leveling up factors.

There is, therefore, an obvious need to make coefficients L simultaneously dependent on populations P and productivities C, so that

$$L = F_{(P,\ C)}$$

In this function population and productivity should exert a stronger influence than actually is the case as refers to the demand for medical services, without ignoring the need of a leveling up factor among different areas:

$$L_1 = F_{(P_1,\ C_1)}$$

$$L_2 = F_{(P_2,\ C_2)}$$

$$\vdots \qquad \vdots$$

$$L_n = F_{(P_n,\ C_n)}$$

This resolves into a linear equation for each area:

$$L_1 = a\,P_1 + b\,C_1$$

$$L_2 = a\,P_2 + b\,C_2$$

$$\vdots \qquad \vdots$$

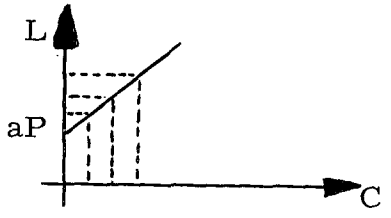
$$L_n = a\,P_n + b\,C_n$$

or, generically

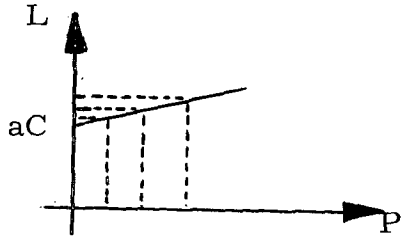
$$L = aP + bC$$

where a and b are constants.

Thus, for a fixed population L increases in proportion to productivity.



In the same way, for an unchanging productivity L increases in proportion to the population.



The values of the constants a and b being such that

$$a + b = 1$$

in order to obtain their values one has but to establish adequately the relative proportions between a and b.

From the fact that higher socio-economic levels originate a demand for medical services twice as large as lower levels, productivity is given a coefficient twice as large as that of the population, that is,

$$b = 2a$$

and therefore

$$a + 2a = 1$$

$$3a = 1$$

$$a = \frac{1}{3}$$

$$b = \frac{2}{3}$$

Consequently, the equation generically becomes

$$L = \frac{1}{3} P + \frac{2}{3} C$$

For determining p in each area there may be adopted the population estimate per municipality for July 1, 1967, by the Statistical Laboratory of the IBGE Foundation, under the supervision of COTEP (Technical Commission for Population Estimates).

As for the value of C, let us just use the values of the 1960 Census for industrial transformation and wholesale and retail trading.

These values per administrative unit (Table 1) were taken from tables 13 and 14 of the official publication relating to the Industrial and Commercial Census.

In Table 2 are to be found the numbers of doctor hours attributable, in accordance with the criterion described, to the various States and Regions, on the basis of a total availability of 70, 000, 000 annual hours.

BASIC DATA
TO ESTIMATE NEED OF DOCTORS
(In million new cruzeiros)

TABLE 1

Physiographic Regions Federation Units	Value of industrial transformation (1) (+) (2)	Value of sales (wholesale and retail) (+) (3)	Total (2) + (3) = R (4)	Population on July 1, 1967 (++) (5)
BRAZIL	554.12	1,234.90	1,789.02	86.93
North	6.14	27.29	33.43	3.18
Acre and Territories	1.24	3.58	4.82	0.41
Amazonas	2.48	7.39	9.87	0.88
Para	2.42	16.32	18.74	1.89
Northeast	27.56	98.89	126.45	19.13
Maranhao	1.49	11.09	12.58	3.04
Piauí	0.37	5.25	5.62	1.54
Ceara	3.13	20.81	23.94	4.07
Rio Grande do Norte	2.15	7.01	9.16	1.41
Paraíba	3.37	9.54	12.91	2.46
Pernambuco	14.14	38.91	53.05	5.05
Alagoas	2.91	6.28	9.19	1.56
East	145.87	395.12	540.99	30.29
Sergipe	1.35	4.31	5.66	0.93
Bahia	13.42	40.81	54.23	7.31
Minas Gerais	33.67	94.20	127.87	12.14
Espírito Santo	1.58	15.64	17.22	1.72
Rio de Janeiro	39.65	39.55	79.20	4.16
South	56.20	200.61	256.81	4.03
Guanabara	370.73	694.15	1,064.88	30.31
São Paulo	301.91	513.45	815.36	15.83
Parana	17.48	56.00	73.48	5.22
Santa Catarina	13.03	22.91	35.94	2.62
Rio Grande do Sul	38.31	101.79	140.10	6.64
West (Center)	3.82	19.45	23.27	4.02
Mato Grosso	1.85	8.32	10.17	1.11
Goias	1.97	11.13	13.10	2.56
Federal District (Brasília)	...	...	...	0.35

(+) Industrial and Commercial Census, 1969 - Tables 13 and 14.
(++) Estimates by the Statistical Laboratory of IBGE Foundation.

NOTE: There are no industrial and sales data available for Brasilia.

DISTRIBUTION OF DOCTORS PER SPECIALTIES

The distribution of doctors according to specialties may be effected, in principle, on the same basis established for doctors generically.

Using available data (Medico-Sanitary Statistics of the Ministry of Health, 1964), it was possible to calculate the proportions of doctors in each specialty and, consequently, the number of hours available in the whole of Brazil over a total of 70 million hours. The results are as follows:

Ratio of doctors and number of hours available per different specialties, by order of frequency

Specialties i	Observed ratio f	Number of available hours E (1)
1 - General Practice	0.3821	26.747
2 - General Surgery	0.1087	7.609
3 - Pediatrics	0.0994	6.958
4 - Gynecology and Obstetrics	0.0949	6.643
5 - Clinical Specialties	0.0865	6.055
6 - Otorhinolaryngology and Ophthalmology	0.0504	3.528
7 - Surgical Specialties	0.0410	2.870
8 - Clinical Analyses	0.0300	2.100
9 - X Rays	0.0220	1.540
10 - Other specialties	0.0850	5.950

(1) Hours expressed in millions

The frequency of the different specialties varies from State to State and from region to region, as may be seen in Table 3, with data for the five physiographic regions and a few typical States. General practice frequency is always the highest, though it varies from one State to another. But in spite of these variations the order of the various specialties is practically the same in all regions and States. Therefore, the total number of hours available (70 million) may be subdivided among the different specialties according to frequencies observed in the whole country and as indicated in Tables 3 and 4.

ESTIMATED DOCTOR NEEDS

TABLE 2

Physiographic Regions and Federation Units	p	r	$\frac{1}{3}$ p	$\frac{2}{3}$ r	L (p, r) = $\frac{1}{3}$p + $\frac{2}{3}$r	70L (p, r) (million) (Total hours)	35,000 L (p, r) (Total doctors)	Existing doctors	Shortage	Excess
BRAZIL	1.0000	1.0000	0.3333	0.6667	1.0000	70.0000	35.0000			
North	0.367	0.0187	0.0122	0.0125	0.0248	1.7360	868	635	233	-
Acre and Territories	0.0047	0.0027	0.0016	0.0018	0.0034	0.2380	119	64	55	-
Amazonas	0.0102	0.0055	0.0034	0.0037	0.0071	0.4970	248	112	136	-
Pará	0.0218	0.0105	0.0072	0.0070	0.0143	1.0010	501	459	42	-
Northeast	0.2210	0.0707	0.0736	0.0471	0.1207	8.4490	4,224	3,373	851	-
Maranhão	0.0351	0.0070	0.0117	0.0047	0.0164	1.1480	574	154	420	-
Piauí	0.0178	0.0031	0.0059	0.0021	0.0080	0.5600	280	224	56	-
Ceará	0.0470	0.0134	0.0157	0.0089	0.0246	1.7220	861	723	138	-
R. G. Norte	0.0163	0.0051	0.0054	0.0034	0.0088	0.6160	308	245	63	-
Paraíba	0.0284	0.0072	0.0094	0.0048	0.0142	0.9940	497	420	77	-
Pernambuco	0.0584	0.0298	0.0195	0.0198	0.0393	2.7510	1,375	1,339	36	-
Alagoas	0.0180	0.0051	0.0060	0.0034	0.0094	0.6580	329	268	61	-
East	0.3498	0.3024	0.1166	0.2016	0.3182	22.2740	11,137	16,210	-	5,073
Sergipe	0.0107	0.0032	0.0036	0.0021	0.0057	0.3990	199	139	60	-
Bahia	0.0845	0.0303	0.0282	0.0202	0.0484	3.3880	1,694	1,700	-	6
Minas Gerais	0.1402	0.0715	0.0467	0.0477	0.0944	6.6080	3,304	3,383	-	79
Espírito Santo	0.0199	0.0096	0.0066	0.0064	0.0130	0.9100	455	293	162	-
Rio de Janeiro	0.0480	0.0443	0.0160	0.0295	0.0455	3.1850	1,593	1,782	-	189
Guanabara	0.0465	0.1435	0.0155	0.0957	0.1112	7.7840	3,892	8,913	-	5,021
South	0.3501	0.5952	0.1168	0.3968	0.5135	35.9450	17,973	14,044	3,929	-
São Paulo	0.1828	0.4557	0.0610	0.3039	0.3648	25.5360	12,768	9,235	3,533	-
Paraná	0.0603	0.0411	0.0201	0.0274	0.0475	3.3250	1,663	1,603	60	-
Santa Catarina	0.0303	0.0201	0.0101	0.0134	0.0235	0.6450	822	450	372	-
R. G. do Sul	0.0767	0.0783	0.0256	0.0521	0.0777	5.4390	2,720	2,756	-	36
West (Center)	0.0424	0.0130	0.0141	0.0087	0.0228	1.5960	798	738	60	-
Mato Grosso	0.0128	0.0057	0.0042	0.0038	0.0080	0.5600	280	261	19	-
Goiás	0.0296	0.0073	0.0099	0.0049	0.0148	1.0360	518	477	41	-
Federal District (Brasília)	...	...	...	...	...	...	...	327	...	...

NOTE - The Absence of basic data (industrial processing and value of sales) makes it impossible to assess needs for Brasilia.

RELATIVE FREQUENCY OF THE DIFFERENT SPECIALTIES IN THE PHYSIOGRAPHIC REGIONS AND IN A FEW FEDERATION UNITS

TABLE 3

Physiographic Regions and Federation Units	SPECIALTIES										
	1	2	3	4	5	6	7	8	9	10	Totals
BRAZIL	0.3821	0.1087	0.0994	0.0949	0.0865	0.0504	0.0410	0.0300	0.0220	0.0850	1.0000
North	0.4034	0.1260	0.1059	0.1008	0.0554	0.0303	0.0168	0.0303	0.0252	0.1059	1.0000
Northeast	0.3233	0.1074	0.0980	0.1306	0.1010	0.0567	0.0396	0.0326	0.0111	0.0997	1.0000
East	0.3767	0.1027	0.1058	0.1006	0.0860	0.0441	0.0393	0.0333	0.0241	0.0874	1.0000
South	0.4006	0.1120	0.0921	0.0804	0.0871	0.0574	0.0434	0.0265	0.0222	0.0783	1.0000
West (Center)	0.3831	0.1512	0.0929	0.0958	0.0610	0.0526	0.0526	0.0169	0.0160	0.0779	1.0000
Guanabara	0.3106	0.1109	0.1198	0.1137	0.1001	0.0447	0.0462	0.0374	0.0240	0.0926	1.0000
Ceará	0.3439	0.0856	0.1202	0.1409	0.1064	0.0635	0.0221	0.0345	0.0124	0.0705	1.0000
Pernambuco	0.3215	0.1095	0.0828	0.1331	0.1164	0.0582	0.0256	0.0375	0.0099	0.1055	1.0000
São Paulo	0.3461	0.1191	0.1031	0.0900	0.1001	0.0620	0.0523	0.0320	0.0237	0.0716	1.0000
Paraná	0.6065	0.0887	0.0631	0.0531	0.0387	0.0437	0.0225	0.0175	0.0162	0.0500	1.0000
Rio G. Sul	0.4347	0.1034	0.0776	0.0682	0.0795	0.0504	0.0305	0.0178	0.0210	0.1169	1.0000

TABLE 4

NUMBER OF HOURS AVAILABLE PER YEAR BY SPECIALTIES WITHIN EACH REGION

Physiographic Regions and Federation Units	SPECIALTIES									
	1 (26.747)	2 (7.609)	3 (6.958)	4 (6.643)	5 (6.055)	6 (3.528)	7 (2.870)	8 (2.100)	9 (1.540)	10 (5.950)
BRAZIL	26.747	7.609	6.958	6.643	6.055	3.528	2.870	2.100	1.540	5.950
North	0.662	0.189	0.172	0.164	0.150	0.087	0.071	0.052	0.038	0.147
Acre and Territories	0.091	0.026	0.024	0.023	0.021	0.012	0.010	0.007	0.005	0.020
Amazonas	0.189	0.054	0.049	0.047	0.043	0.025	0.020	0.015	0.011	0.042
Pará	0.382	0.109	0.099	0.094	0.086	0.050	0.041	0.030	0.022	0.085
Northeast	3.228	0.918	0.840	0.802	0.731	0.426	0.346	0.255	0.186	0.718
Maranhão	0.439	0.125	0.114	0.110	0.099	0.058	0.047	0.034	0.025	0.098
Piauí	0.214	0.061	0.056	0.053	0.048	0.028	0.023	0.017	0.012	0.048
Ceará	0.658	0.187	0.171	0.163	0.149	0.087	0.071	0.052	0.038	0.146
R. G. do Norte	0.235	0.067	0.061	0.058	0.053	0.031	0.025	0.018	0.014	0.052
Paraíba	0.380	0.108	0.099	0.094	0.086	0.050	0.041	0.030	0.022	0.084
Pernambuco	1.051	0.299	0.274	0.262	0.239	0.139	0.112	0.084	0.061	0.234
Alagoas	0.251	0.071	0.065	0.062	0.057	0.033	0.027	0.020	0.014	0.056
East	8.511	2.421	2.214	2.114	1.927	1.123	0.913	0.668	0.490	1.893
Sergipe	0.152	0.043	0.040	0.038	0.035	0.020	0.016	0.012	0.009	0.034
Bahia	1.295	0.368	0.337	0.322	0.293	0.171	0.139	0.102	0.075	0.288
Minas Gerais	2.525	0.718	0.657	0.627	0.572	0.333	0.271	0.198	0.145	0.561
Espírito Santo	0.348	0.099	0.090	0.086	0.079	0.046	0.037	0.027	0.020	0.078
Rio de Janeiro	1.217	0.346	0.317	0.302	0.276	0.161	0.131	0.096	0.070	0.271
Guanabara	2.974	0.847	0.773	0.739	0.672	0.392	0.319	0.233	0.171	0.661
South	13.736	3.908	3.573	3.412	3.109	1.812	1.475	1.079	0.791	3.056
São Paulo	9.758	2.776	2.537	2.424	2.209	1.287	1.048	0.767	0.562	2.171
Paraná	1.270	0.361	0.331	0.316	0.288	0.168	0.136	0.100	0.073	0.283
Santa Catarina	0.629	0.179	0.164	0.156	0.142	0.083	0.067	0.049	0.036	0.140
R. G. do Sul	2.079	0.592	0.541	0.516	0.470	0.274	0.224	0.163	0.120	0.462
West (Center)	0.610	0.173	0.159	0.151	0.138	0.080	0.065	0.048	0.035	0.136
Mato Grosso	0.214	0.061	0.056	0.053	0.048	0.028	0.023	0.017	0.012	0.048
Goiás	0.396	0.112	0.103	0.098	0.090	0.052	0.042	0.031	0.023	0.088

APPENDIX (to paragraph 244. 2)

Assessing subsidies for health areas and services

1 - OVER-ALL SUBSIDIES FOR HEALTH AREAS

11 Over-all subsidies for each health area are the sum total of items corresponding to the subsidization of doctors, hospital treatment, complementary services, medicines, personnel improvement and administration. This programming requires, for the specification of each item and its distribution, the following procedure. However, other methods will be admitted provided they are agreed to by doctors and interested parties and will assure the limitation of public expenditure within the range of available resources and a just distribution of these resources.

12 Any possible incorrections in the initial calculations, owing to the insufficiency of statistical data, will be gradually rectified on the basis of correct information obtained through the financial and statistical sectors of the system.

2 - DOCTORS

21 - SUBSIDIES PER AREA

211 The establish the amount of subsidies to doctors of each health area the following method may be adopted:

a) the quota of medical fees per inhabitant will be the quotient of the division of the over-all medical income (1% of the GNP) by the number of inhabitants presumably utilizing the services:

$$\left(\frac{\text{over-all medical income}}{\text{number of beneficiaries}} = \text{quota of medical fees per inhabitant}\right);$$

b) to evaluate the maximum subsidies in each area let us first find out the product of the medical fees quota by the number of inhabitants, and on the resultant value calculate the percentage of public resources in financing the system, according to the economic classes (paragraph 237.8) of the inhabitants of the area:

(medical fees quota per inhabitant x number of inhabitants in the area x percentage of participation of public resources in financing the system = maximum limit of subsidies for each area).

c) to determine the value of subsidies in proportion to services actually started, the top limit for subsidies in each area is to be divided by the number of doctors admitted for the area (paragraph 131.5) and the quotient multiplied by the number of doctors registered with the system in the same area, up to the top limit just referred to:

($\frac{\text{maximum subsidy in each area}}{\text{number of doctors admitted for the area}}$ x number of doctors enlisted in the system = subsidy in each area)

22 - SUBSIDY FOR INDIVIDUAL DOCTORS

221 The individual subsidy to doctors in each area will correspond to the fraction of the total subsidies apportioned to each, obtained from the pro rata division of the latter among all local doctors.

222 The individual quota may be arrived at through different methods according to preference, as for instance the total of service units performed by each doctor, including medical examinations, complementary tests, therapeutic acts, etc. In all cases, the adopted procedure should assure a proportionality between the remuneration and the relative quantity of work carried out by competing doctors.

222.1 In the procedure based on service units the number of points scored by each doctor for the proportional division of the local subsidy will be obtained by adding up the scores relative to each service, to be established on the basis of the medical fees table (paragraph 223) and the financing indicator (paragraph 237).

3 - HOSPITALIZATION

31 - SUBSIDY PER AREA

311 Subsidy values will result from the total of local subsidies for each hospital specialty. These can be arrived at by multiplying the number of beds of each specialty (paragraph 232.3) by the scheduled hospitalization value (paragraph 223) and working out the percentage of financing to be covered by official resources (paragraph 237):

> % of official financing (number of specialized beds x local daily rate) = subsidy value for hospital specialty.

312 Differences between amounts handed over to the area's administration, for the subsidization of hospitals, and amounts actually paid to them will be compensated for through account adjustments.

32 - SUBSIDIES TO HOSPITALS

321 Subsidies to hospitals should be proportional to the number of beds actually occupied. The value corresponding to each bed should be previously weighted in accordance with the respective value in official tables (paragraph 23), the percentage of participation by the government in financing the system and the hospital's classification and efficiency rates:

(number of occupied beds x daily rate x % of official participation in meeting costs x hospital classification x hospital efficiency = value of hospital subsidy.

321.1 The classification index will be established on the basis of INPS prerequisites in connection with the hospital's physical plant, equipment, installation and organization.

321.11 Indices may be revised at any time upon request of interested parties or through the initiative of the health area's administration.

321.2 Within the first six months after the system has been started efficiency indices will be set up on the basis of the relative utilization of beds and the mean hospitalization time per disease.

321.21 The relative utilization index, to be adopted in order to bring about a better use of available resources, may correspond to the rate of empty beds beyond acceptable limits.

321.22 Efficiency as to the mean lenght of hospitalizations may be appraised through actual periods of stay in hospitals and probable averages.

4 - COMPLEMENTARY SERVICES

41 - SUBSIDY PER AREA

411 The total resources for subsidization of complementary services (diagnosis, treatment and dentistry) will be distributed among health areas in proportion to the respective coefficients of medical services.

411.1 The medical services coefficient will correspond to a fraction having for numerator the number of local doctors (paragraph 131.5) and for denominator the total of doctors presumably available, i.e., 35,000 doctors.

411.2 Calculations for finding the value of subsidies dealt with in this paragraph should exclude any items relative to medical services, as these have already been included in the previous paragraph (22).

42 - SUBSIDIES TO PROFESSIONALS AND SERVICES

421 The amount corresponding to the subsidy for the area should be redistributed among the various services in the proportions set up by the local planning.

422 Payment for each service may be established in accordance with the rules and criteria suggested for doctors (paragraph 2 of this Appendix) or after the method chosen by the area's professionals and approved by the system's administration.

5 - MEDICINES

51 - SUBSIDY PER AREA

The amount of subsidies for each health area as partial financing of pharmaceutical services is to be assessed in accordance with the same criteria propounded for finding the level of subsidy going to complementary services, i.e., in the proportion indicated by the local medical services coefficient.

52 - LOCAL PHARMACEUTICAL SERVICE

521 When the system first starts working, any pharmaceutical aid should be made effective through the agency of the Social Service. Aid for the purchase of medicines will be given in proportion to the individual's economic standing (paragraph 237) and within the limits of local allotments.

521.1 The Social Service will also control the adequate enjoyment of individual benefits granted by the system.

522 After the first stage is through, the pharmaceutical assistance will be bestowed by the organization referred to in paragraph 134 of the text, the destination of resources to be effected in accordance with the sector's programming.

6 - IMPROVEMENT AND ADMINISTRATION

Subsidies for improvement and administration activities will correspond, in each area, to about 8.5% of all subsidies referred to in the previous paragraphs (2 through 5) and will be invested in accordance with the local budgets.

APPENDIX (to paragraph 42)

Guide to data collecting in health areas

Questionnaire no. _____

IDENTIFICATION

Municipality _____ Federation Unit _____

Physiographical zone _____ Physiographical region _____ Polarized region to which municipality belongs _____

GENERAL ASPECTS

1 Physical

1.1 Area (sq. km.) _____ 1.2 Altitude of seat (meters) _____ 1.3 Situation: Seashore ☐ Inland ☐ 1.4 Air temperature (C.): Absolute maximum _____ Absolute minimum _____ Mean maximum _____ Mean minimum _____ 1.5 Relative humidity (%) _____ 1.6 Rainfall (mm.): Annual _____ 24-hour maximum _____ 1.7 Districts (No. of): _____ List: _____

2 Demographical

Number	Specification	Year	Numerical data
2.1	Population		
2.1.1	Census registered:		
	Total		
	Urban		
	Rural		
	Male		
	Female		
	Literate		
	Higher education (complete)		
	Higher education (incomplete)		
	High school (complete)		
	High school (incomplete)		
	Elementary school (complete)		
	Elementary school (incomplete)		
	Illiterate		
2.1.2	Estimated:		
	Total		
	Urban		
	Rural		
	Male		
	Female		
	By age groups:		
	0 to 4		
	5 to 9		
	10 to 14		
	15 to 19		
	20 to 24		
	25 to 29		
	30 to 39		
	40 to 49		
	50 to 59		
	60 to 69		
	70 and over		
	Unknown age		
	Of seat district (town)		

Number	Specification	Year	Numerical data
2.1.3	Density (inhab/sq. km.) Death rate: General (per 1,000 inhab.) Infant (per 1,000 inhab.) By death causes (per 100,000 inhab.) Infectious and parasitic diseases Neoplasms Nervous system diseases Circulatory diseases Digestive tract diseases Genitourinary diseases Pregnancy and childbirth complications (1) Congenital deformities Infant diseases Symptoms, senility and undefined causes Accidents, poisoning and violence		

(1) Death rate per 1,000 born alive

2.1.5 Civil registries (No. of) _____

3 Economic

Number	Specification	Year	Numerical data
3.1	Industrial concerns employing 5 or more people:		
3.1.1	No. of firms		
3.1.2	Value of industrial production (NCr$)		
3.2	Commerce		
3.2.1	Commercial firms: Wholesalers Retailers Mixed		
3.2.2	Sales value (NCr$)		
3.3	Agricultural production value (NCr$)		
3.4	Banks (branches and head offices)		
3.5	Drugstores and pharmacies		

3.6 Are there any chemical laboratories? Yes ☐ No ☐ If so, enumerate them according to value of industrial production _____

3.7 Main banking houses _____

3.8 Post and telegraph - Any office? Post ☐ Post and telegraph ☐ Post, radio and telegraph ☐ Post-coastwise ☐ Telex ☐ 3.9 Got telephone? Yes ☐ No ☐

3.10 Got a port? Sea ☐ River ☐ Lake ☐

3.11 Railroads in the municipality _____

3.12 Federal and State highways in the municipality _____

Chief road transportation companies in the municipality _____

3.13 Waterway transportation in the municipality: Sea ☐ River ☐ Lake ☐ Chief waterway transportation companies in the municipality _____

3.14 Got an airport or landing field? Yes ☐ No ☐ In the affirmative case, can small commercial planes land on it? Yes ☐ No ☐ Air companies serving the municipality _____

Specification	Roadway				Railway				Air				Waterway				Mixed			
	Distance		Frequency	Fare	Distance		Frequency	Fare	Distance		Frequency	Fare	Distance		Frequency	Fare	Distance		Frequency	Fare
	Km	Hours		NCr$	Km	Hours		NCr$	Km	Hours		NCr$	Km	Hours		NCr$	Km	Hours		(NCr$)
From main municipality																				
To State Capital:																				
To Districts:																				
To neighboring municipal seats:																				

4 Social

Number	Specification	Year	Numerical data
4.1	Rural associations		
4.2	Cooperatives		
4.3	Unions		
4.4	Benevolent societies doing medical work		

4.5 Is the water supply treated? Yes ☐ No ☐ In the affirmative case, what type of treatment is adopted? _____

4.6 Is there a sewers system? Yes ☐ No ☐ In the affirmative, how many houses are served by the sewers system? _____ And by cesspools? _____

4.7 Is garbage collected from home? Yes ☐ No ☐ 4.8 Electricity: Voltage _____ Frequency _____

4.9 Enumeration of associations referred to in subdivisions 4.1 to 4.4:

Name of association	Location (District)	Nature and social purpose	Number of members	Has health line		Monthly maintenance of health sector (NCr$)
				Yes	No	

4.10 Minimum salary (NCr$) _____

4.11 Name of Mayor _____

5 Cultural

Number	Specification	Year	Numerical data
5.1	Broadcasting stations		
5.2	Television stations		
5.3	Newspapers		
	Dailies		
	Non dailies		

5.4 Are there faculties or other kinds of medical schools? Yes ☐ No ☐ In the affirmative, enumerate them _____

6 Financial

Number	Specification	Year	Numercial data
6.1	Annual receipt (NCr$)		
	From the federal government		
	From the State		
	From the city government (exclusive of assessed shares of federal and State taxes)		
6.2	Assessed shares of federal and State taxes (NCr$)		
6.3	City government's expenditure (NCr$)		
6.4	Rural tax collection (NCr$)		
6.5	Contributions to the INPS (NCr$)		
6.6	Health sector's expenditure (NCr$)		
	By the federal government		
	By the State		
	By the city government		

6.7 Got a federal tax-collector's office? Yes ☐ No ☐ In the negative, in what municipality are taxes collected? _____ 6.8 Got a State's collector's office? Yes ☐ No ☐ In the negative, in what municipality are taxes collected?

7 Medico-sanitary

7.1 More frequent diseases:

Ancylostomiasis ☐ Endemic goiter ☐ Bubo ☐ Children's diarhea ☐ Chagas' disease ☐ Schistosomiasis ☐ Yellow fever ☐ Typhoid fever ☐ Filariasis ☐
Hydatid disease ☐ Leishmaniasis ☐ Leprosy ☐ Malaria ☐ The plague ☐
Poliomyelitis ☐ Trachoma ☐ Tuberculosis ☐ Smallpox ☐

7.2 Chief epidemics occurring in recent years _____

Number	Specification	Year	Numerical data
7.3	Hospital institutions receiving inpatients		
7.4	Hospital beds		
7.5	Dentists		
7.6	Doctors		

7.7 Acting doctors per specialty:

Specialty	Acting doctors			Nearest municipality where to find a specialist if there is none locally (1)
	In district	In other districts	Total	
Hospital administration				
Sanitary administration				
Allergology				
Pathological anatomy				
Anesthesiology and Gasotherapy				
Angiology				
Biostatistics				
Biology				
Biometrics				
Cancerology				
Cardiology				
Cardiovascular surgery				
Gastroenterological surgery				
General surgery (+)				
Children's surgery				
Restorative plastic surgery (including burns)				
Aesthetic plastic surgery				
Peripheral vascular surgery				
Surgery of the hand				
Medical practice (+)				
Dermatology and Syphilology				
Tropical diseases				
Medical Economics				
Endocrinology				

Specialties	Acting doctors			Nearest municipality where a specialist can be found, if there is none locally (1)
	In district	In other districts	Total	
Epidemiology				
Gastroenterology				
Geriatrics				
Gynecology (+)				
Clinical hematology				
Hemodynamics				
Hemotherapy				
Leprology				
Occupational medicine				
Physical medicine				
Social medicine				
Labor Medicine				
Spatial medicine				
Sports medicine				
Legal medicine				
Military medicine				
Nuclear medicine				
Sanitary medicine				
Nephrology				
Neurosurgery				
Neurology				
Dietetics				
Obstetrics (+)				
Ophthalmology				
Orthopedics and Traumatology				
Otorhinolaryngology (+)				
Clinical pathology (+)				
Pediatrics (+)				
Pneumonology				
Proctology				
Psychotherapy				
Psychiatry				
Radiology (+)				
Radiotherapy				
Rheumatology				
Phthisiology				
Urology				
General Total				

(1) Give answers only with reference to specialties marked with an asterisk

7.8 Distribution of functions performed by doctors and dentists per kind of activity and administrative nature

Activities	Functions						
	Total	Administrative Subordination					
		Private	Official				
			Total	Federal	State	Municipal	Autonomous
	D O C T O R S						
Medical care							
Public health							
Teaching							
Other activities							
GENERAL TOTAL							
	D E N T I S T S						
Dental care							
Public health							
Teaching							
Other activites							
GENERAL TOTAL							

7.9 Distribution of functions performed by paramedical personnel per king of activity and administrative nature

Activities	Functions						
	Total	Administrative Subordination					
		Private	Official				
			Total	Federal	State	Municipal	Autonomous
Nursing							
Graduated murse							
Nursing assistant							
Nursing hand							
Graduated midwife							
Attendant							
Total							
Pharmacy							
Pharmacist							
Pharmaceutic hand							
Total							
Nutrition							
Nutritionist							
Social Service							
Social assistant							
Laboratory							
Laboratory operator							
Laboratory assistant							
Total							
Others							
Masseur							
X-ray expert							
Physiotherapy expert							
Clinical analyst							
Anatomo-pathologist							

7.10 Are there units for medical research? Yes ☐ No ☐ In the affirmative, enumerate them _____

7.11 How are doctors and paramedical personnel trained and improved? _____

_____

7.12 Are there specific public health services? Yes ☐ No ☐ In the affirmative, enumerate them according to kind of activity and administrative subordination _____

_____

8 Social security activities

8.1 Beneficiaries and employers

Members	Year	Numerical data
Beneficiaries		
Insured		
Dependents		
Retired workers		
Survivor pensioners		
Temporarily unable to work		
Employers		

8.2 Medical care personnel

Personnel	In hospitals			In sanitary units (clinics, dispensaries, etc.)			In administrative sectors		
	Total	Employees	Accredited (1)	Total	Employees	Accredited (1)	Total	Employees	Accredited (1)
Doctors									
Dentists									
Social assistants									
Nutritionists									
Pharmacists									
Pharmacy experts									
Nurses									
Nursing assistants									
Nursing hands									
Graduated midwives									
Attendants									
Laboratory operators									
Laboratory assistants									
Masseurs									
Technicians:									
X-ray									
Physiotherapy									
Clinical analyses									
Pathological anatomy									
Administrative personnel									
Others									
GENERAL TOTAL									

(1) Or others without employment connection.

8.3 Agreements or contracts concluded and in force with groups or corporations (name, basic conditions and value) _____

8.4 Beds kept in hospital institutions on account of agreements and contracts, by medical specialties:

Hospital	Beds								
	Total	Medical specialties							Mean daily rate (NCr$)
		General	Surgery	Obstetrics	Pediatrics	Phthisiology	Psychiatry	Others	

8.5 Budget for medical expenditure in 1968, indicating covered area and amount of allocattions (NCr$) _____

9 Others

9.1 Existing units for collecting statistical data _____

Date of survey: From ___/___/19___ to ___/___/19___

_____
Signature of informer

RECORDS

DOCTOR'S RECORD

Full name _____

Sex: Male ☐ Female ☐ Date of birth __/__/__ Place of birth: Country _____

_____ State _____ Municipality _____ District _____

Address: _____

Name and location of medical school attended _____

Nature and length of course _____ Year of graduation _____

Other specializations _____

Medical activities performed with employment bond

Institution	Juristic nature of institution	Function performed	Year of admission	Type of employment	Working hours	Monthly pay (NCr$)

Got a doctor's office? Yes ☐ No ☐ In the affirmative, give its address _____

_____

Do you work in your office for the INPS? Yes ☐ No ☐ In the affirmative, how many patients a month are sent to you? _____

Medical societies you belong to _____

Places where you work as a doctor with no employment bond

Name and address of institution	Function performed	Specialty	Hours per day	Average monthly pay (NCr$)

Medical fees, for services performed:

Services	Medical fees (NCr$)
Office visits	
With an appointment	
Without an appointment	
Home calls	
Normal	
Extraordinary	
Normal birth	
Caesarean	
Appendectomy	
Tonsillectomy	

Self-owned equipment

Equipment (nature of)	Technical characteristics

__/__/__
Date

_____
Doctor's signature

DENTIST'S RECORD

Full name _____

Sex: Male ☐ Female ☐ Date of birth __/__/__ Place of birth: Country _____

_____ State _____ Municipality _____

District _____ Address _____

Name and location of school attended _____ Year of graduation _____

Odontological activities performed with employment bond

Institution	Juristic nature of institution	Function performed	Year of admission	Working hours	Monthly pay (NCr$)

Got a doctor's office? Yes ☐ No ☐ In the affirmative, give its address _____

_____

Do you work in your office for the INPS? Yes ☐ No ☐ In the affirmative, what is the average monthly attendance? _____ Professional societies you belong to _____

_____ Places you work as a dentist with no employment bond

Name and address of institution	Function performed	Hours per day	Average monthly pay (NCr$)

Price of visit (NCr$): With an appointment _____ No appointment _____

Self-owned equipment:

Equipment (nature of)	Technical characteristics

__/__/__
Date

_____
Dentist's signature

PARAMEDICAL PERSONNEL RECORD

Full name _____

Sex: Male ☐ Female ☐ Date of birth ___/___/___ Place of birth: Country _____

_____ State _____ Municipality _____

Address _____

Paramedical activity performed _____

Name and location of school attended _____

Nature and length of course _____ Year of graduation _____

Other specializations _____

Paramedical activities performed with employment bond

Institution	Juristic nature of institution	Function performed	Year of admission	Working hours	Monthly pay (NCr$)

Professional societies you belong to _____

Places where you work in a paramedical capacity with no employment bond

Name and address of institution	Function performed	Hours per day	Average monthly pay (NCr$)

___/___/___
Date

_____
Informer's signature

HEALTH UNITS RECORD

(Clinics, dispensaries, etc.)

Name of Health Unit _____

Maintainer institution _____

Administrative status: Federal ☐ State ☐ Municipal ☐ Autonomous ☐

Private ☐

Year it started operating _____

Location: State _____ Municipality _____

District _____ Address _____

Purpose _____

Installation and equipment:

Building: Self-owned ☐ Rented ☐ Other forms ☐ Sufficient ☐ Insufficient ☐

Built expressly for its destination ☐ Adapted ☐

Clinical pathology laboratory : Yes ☐ No ☐

Pathological anatomy laboratory: Yes ☐ No ☐

Pharmacy: Yes ☐ No ☐

Offices (No. of): _____ Beds (No. of) _____

Blood bank: Yes ☐ No ☐

Physiotherapy: Yes ☐ No ☐

Radiotherapy: Yes ☐ No ☐

Dentist's offices (No. of) _____

Radiumtherapy: Yes ☐ No ☐

Radiodiagnosis: Yes ☐ No ☐

Electroencephalography: Yes ☐ No ☐

First aid clinic: Yes ☐ No ☐

Electrocardiography: Yes ☐ No ☐

Ambulances (No. of) _____

Equipment of complementary services for diagnosis and treatment (radiology, laboratories, physiotherapy, electrocardiography, radiotherapy etc.)

Equipment (nature of)	Technical characteristics	Owner

Personnel at work (No. of):

Clinic and surgery doctors _____ Sanitation doctors _____

Dentists _____ Pharmacists _____ Nurses _____

Nutritionists _____ Social workers _____ Laboratorists _____

Laboratory assistants _____ Nursing assistants _____

Nursing hands _____ Masseurs _____ X-ray operators _____

Physiotherapy experts _____ Clinical analysts _____ Patho-

logical analyses expert _____ Sanitary guards _____ Attendants _____

Office personnel _____ Others _____

1967 statistics (No. of):

Total _____ Paid for _____ Free _____ Average price(NCr$)

_____ Attendances _____ Laboratory tests _____ X rays _____

Physiotherapy applications _____ Radiotherapy applications _____

Hospitalizations: Total _____ Partial _____ Full _____

Relationship with social security (for accredited doctors):

1967 statistics (No. of):

Total _____ Average price (NCr$) _____ Attendances _____

Laboratory tests _____ X rays _____ Physiotherapy

applications _____ Radiotherapy applications _____

Hospitalizations: Total _____ Partial _____ Full _____

Budget for 1968 (NCr$): _____

_____ / _____ / _____
Date

_____
Signature of informer

RECORD OF UNITS DEALING WITH COMPLEMENTARY MEDICAL SERVICES

(*Analysis laboratories, radiological services, etc.*)

Name of Complementary Medical Services Unit _____

Owner _____ Year of installation _____

Location: State _____ Municipality _____

District _____ Address _____

Object _____

Installation and equipment: _____

The plant is: Self-owned ☐ Rented ☐ Other forms ☐

Existing equipment:

Equipment (nature of)	Technical characteristics	Owner

Ambulances (No. of) _____

Existing personnel (enumerate according to function) _____

_____

Service performed in 1967 (enumerate according to type) _____

_____

Unitary cost of the analyses (enclose tables)

Relationship with social security, if accredited:

No. of cases done in 1967 _____ Average price per case (NCr$) _____

_____

_____ / _____ / _____

Date

_____

Informer's signature

HOSPITAL RECORD

Name of hospital _____

Maintained by _____

Administrative status: Federal ☐ State ☐ Municipal ☐ Autonomous ☐
Private ☐

Year of installation _____

Location: State _____ Municipality _____
District _____ Address _____

Object: For adults and children ☐ For children only ☐ Integrated health units ☐
Specialized ☐ Teaching ☐

Enumerate clinics normally running _____

Clinical corps: Open ☐ Closed ☐ Form of admission _____

Personnel at work (No. of):

Doctors _____ Dentists _____ Pharmacists _____ Nurses _____
Nutritionists _____ Social workers _____ Laboratory operators _____
Laboratory assistants _____ Nursing assistants _____
Nursing hands _____ Pharmacy experts _____ Masseurs _____
X-ray experts _____ Physiotherapy experts _____ Clinical analysts _____ Pathology analysts _____ Attendants _____
Office personnel _____ Others _____

Installation and equipment:

Building: Self owned ☐ Rented ☐ Other forms ☐ Sufficient ☐ Insufficient ☐
Built expressly for its destination ☐ Adapted ☐
Pharmacy: Yes ☐ No ☐
Dentist's office (No. of) _____
Laboratories (No. of): Clinical pathology _____ Pathological anatomy _____
Clinics (No. of offices) _____
First aid clinic: Yes ☐ No ☐
Blood bank: Yes ☐ No ☐
Rooms (No. of): Operating _____ Parturition _____
Beds (No. of): Total _____ In wards _____
In private rooms _____ In apartments _____
Nursery (No. of cradles) _____
Radiotherapy: Yes ☐ No ☐
Radiumtherapy: Yes ☐ No ☐
Radiumcobaltherapy: Yes ☐ No ☐
Radiodiagnosis: Yes ☐ No ☐
Isotopes: Yes ☐ No ☐
Electroencephalography: Yes ☐ No ☐
Electrocardiography: Yes ☐ No ☐
Physiotherapy: Yes ☐ No ☐

Ambulances (No. of) _____

Equipment of complementary services for diagnosis and treatment (radiology, laboratory, physiotherapy, electrocardiography, radiotherapy, etc.)

Equipment (nature of)	Technical characteristics	Owner

Beds:

Specification	Beds							
	Total	According to specialties						
		General	Surgery	Obstetrics	Pediatrics	Tuberculosis	Psychiatry	Other
Apartments								
Rooms:								
With 1 bed								
" 2 beds								
Wards:								
With 3 to 4 beds								
" 5 " 6 "								
" more than 6 beds								
GENERAL TOTAL								

Number of inpatients and mean stay according to specialties - 1967

Specialties	Inpatients					Mean stay	Average daily rate per inpatient
	Total	Kept by INPS	Private		Kept under other institutions		
			Paying	Free			
General							
Surgery							
Obstetrics							
Pediatrics							
Psychiatry							
Tuberculosis							
Other specialties							
TOTAL							

Inpatients per origin:

Origin	No. of inpatients
From district of hospital	
From other districts of same municipality	
From neighboring municipalities	
From other municipalities	
TOTAL	

Tests and examinations in 1967: Clinical pathology _____ Pathological analysis _____ Basal metabolism _____ Radiographs _____ Miniature radiographs (Abreugrafias) _____ Electrocardiograms _____ Isotopes _____

Applications: Radiotherapy _____ Radiumtherapy _____ Short waves _____
Diathermy _____ Ultraviolet rays _____ Infrared rays _____
Ultrasonic waves _____ Physiotherapy _____

Surgical operations: Major _____ Minor _____
Rehydrations _____
Blood transfusions _____
Attendances: In clinics _____ In emergency clinics _____
In social service unit _____

Average rates:

Specification	Daily rates (NCr$)	
	With medical fees	Without medical fees

Budget for 1968 (NCr$) _____

_____/_____/_____
Date

_____
Informer's signature

SPECIAL INQUIRY

(to be filled in by local doctors and dentists)

Name of informer _____

Location: State _____

Municipality _____ District _____

Address _____

Useful information _____

_____

_____

_____

_____

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_____

_____/_____/_____
Date

_____
Signature of informer