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PANAMA: HEALTH SECTOR ASSESSMENT  
PREPARED BY THE GOVERNMENT OF PANAMA HEALTH COMMISSION\*

December 1975

\*This document is a rough summary and translation of a larger Spanish document.

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GEOGRAPHIC ASPECTS OF THE ISTHMUS OF PANAMA

The Isthmus of Panama, geographic location of the Republic of Panama, constitutes the narrowest and least elevated part of the Isthmus of Central America and represents the connecting link between the continents of North and South America. Panama with a territorial area of 77,082.2 including the 1,432.2 K2 of the Panama Canal Zone, compares in size to the state of South Carolina. Located in the north tropic zone, Panama has a tropical climate with high temperatures and little variations between minimum and maximum. High rainfall and humidity promotes the growth of dense tropical vegetation in much of the country. Panama is bordered on the North by the Caribbean Ocean, on the South by the Pacific Ocean, the East by Colombia and the West by Costa Rica.

The Central Cordillera, an extension of the Talamanca Range which originates in Costa Rica, extends the length of the Isthmus and is the principal and most outstanding physical feature of the country. This mountain range divides the country into two well defined watersheds, that of the Caribbean Ocean and that of the Pacific Ocean, each with different climatic/botanical characteristics. The range has its greatest elevations in the eastern region near the Costa Rican border with the Volcan Barú at 3,475 meters being the highest.

The plains or flat lands which compose the majority of the emerging lands of the country are located between the mountains and the sea on both sides of the principal mountain system. They reach the greatest

width and breadth on the Pacific Coast in the central part of the Isthmus, forming the plains region. This extends, almost without interruption, in an east/west direction from approximately the central isthmus to the Costa Rican frontier and include a large part of the Azuero Peninsula in the extreme south of the country. The central isthmus is characterized by being the narrowest part of the country where are concentrated the majority of the Panamanian population and where is located the interocean canal. On the north coast the low altitude lands are found principally in a narrow band near the ocean with extensions into the more important river alleys located throughout the watershed of the Caribbean Ocean.

The existing mountain system blocks the action of the dominant winds and affects the climatic, vegetative and hydrographic characteristics of the two coasts. The Caribbean watershed, exposed to the direct influence of the humid northeastern winds which predominate in humid tropical climates, is wet with levels of rainfall fluctuating between 2,500 and 3,500 mm annually. Both the narrow coastal land and the mountainous areas are covered with a dense tropical rain forest type of vegetation. The rivers are short with steep gradient and abundant flow caused by the proximity of the mountains to the coast and the great quantity of rains which fall year round in the region.

The watershed of the Pacific, protected by the mountain range, from the previously mentioned humid winds, is more arid with a dry

tropical climate which has a range of precipitation between 1,000 and 1,500 mm annually and a 4 to 5 month dry season, with a predominantly dry tropical forest and plains type of vegetation. The rivers are many and longer, but with reduced flow. The Panamanian coasts present marked differences on both oceans: that of the North, by the Caribbean Ocean, is of less extension - 1,246 kilometers, lacking in large bays and with a narrow continental shelf. In addition the coastal region is humid, unhealthy and dangerous for navigation; factors which have contributed to the scarce settlement.

The southern coast, by the Pacific Ocean has an extension of 1,634 kilometers, presents many bays for the formation of good ports, has a broad continental shelf, is distant from the high lands and in general terms is a healthy and dry coast. All of these factors have permitted a greater concentration of population along this coast.

Panama has 1,518 islands of which 1,023 are located in the Caribbean Ocean and 495 in the Pacific Ocean. The largest is Coiba with an area of 495 K2. The majority of the islands possess great natural beauty and are presently being exploited as tourist attractions.

The highway system of Panama as of June 1974, had a total extension of 7,127.1 kilometers, with 637.0 kilometers of concrete (8.9%), 1,599.6 kilometers of asphalt (22.4%), 1,843.8 kilometers of gravel surfaced (25.9%), and 3,046.7 kilometers of earth surfaced (42.8%). In addition, the eastern section of the Panamerican Highway which will reach to Palo de las Letras at the frontier with Colombia, is under construction.

### GENERAL CHARACTERISTICS

The population of the Republic of Panama was approximately 1,670,000 inhabitants in 1974; 49% living in the urban area, and 51% in the rural area. Of this total population, 43.4% is under 15 years of age, and 56.6% are adults. There are 22% women in the fertile age.

The density of the country is 21.4, ranging from 1.4 in the Province of Darien, to 3,500 in the Capital City. The Panamanian population is characterized by its high degree of geographic and social dispersion.

The economy of the country increased between the 1960-1970 period, at a pace of 8.7 per year. The result of this significant economic increase can be found in the PIB per capita, showing that from a value of B/326 in 1960, it increased to B/701 in 1973.

The primary sector of the economy absorbs 42.3% of the active population, and contributes with 18.3% to the total internal gross product. The secondary sector of the economy absorbs 14.1% of the population and contributes with 26.1% of the total internal product. The tertiary activities or services absorb 39.2% of the active population, and contribute with 47.8% of the internal gross product.

The level of education is one of the most important socio-economic factor in the health plans for social and economic development. The rate of illiteracy has decreased considerably during the past years, and by 1960, it had reached a level of 18% of the population 10 years old or over. In the rural sector it is 31%, or five times higher than in the urban areas.

There seems to be a strong relationship between the territorial distribution of the population, and the illiteracy rates, in other words, the more scattered the population, the higher the illiteracy rate.

Following are a series of important factors that limit the education process:

- a. The present accelerated demographic increase affecting the country, results in a larger concentration of the younger population.
- b. The geographical dispersion of the rural population.
- c. The problems of the indigenous population, not totally incorporated into the development plans of the country.
- d. The existence of rural groups which must produce their own economic structures and where children are considered as productivity factors.
- e. Lack of means of communication.
- f. Factors related to the economy, pertaining to land tenure and rudimentary agricultural techniques.
- g. School drop-out and failures by the children for various reasons.

The country is divided into 9 provinces and 66 districts, which in turn are sub-divided into 505 municipalities<sup>(1)</sup>. The municipalities are formed by an average of 20 communities; and operated by local groups coordinated under a Community Group, presided by the representative of the municipality, who at the same time acts as representative to the

(1) Country burrow

National Assembly and the Municipal Council of each respective district. The most important provincial political organism is the Provincial Council, formed by representatives of the municipalities, the Governor, the Military Chief of the Province and the provincial chiefs of all the ministries and agencies of the State.

Based on the new political organization of the country, placing great emphasis in the reinforcement of the provinces, and the active participation of the representatives from each of the municipalities, government officials at the provincial level in the planning, implementation, evaluation and supervision of the development activities in the provinces, through the provincial coordination councils, a reorganization was carried out to replace the non-functional multiprovincial regions, by provincial health regions. Each region is responsible to a medical director with executive duties at the provincial level. Thus nine sanitary regions were created, one in each province, with the exception of the Sanitary Region of Azuero, which is made up of the provinces of Herrera and Los Santos. The Sanitary Region of Panama, formed by the Province of Panama and the San Blas Islands, and the Metropolitan region made up the City of Panama and the Special District of San Miguelito.

This type of organization in the five integrated provinces functions under a provincial chief, who in turn is responsible for the development of programs implemented in these provinces by the two agencies providing health services to the State, the MOH and CSS. With the new organization, the MOH has effectively adapted the political changes established by the National Constitution, and is ahead in the type of organization that

calls for a single health system, once the process of integration has been completed.

The task of five years of the revolution, in the health sector is manifested in three important achievements: the participation of organized communities in the health programs; the increase in the delivery of health services throughout the entire country, and the integration on the health services, which began in five provinces, as established in the National Constitution. The philosophy of the work performed by the MOH, is oriented toward the integral health of the individual, the family, and the community. The effective participation of the communities is encouraged for improving the quality of life, and the effective increase in the national productivity. This policy is within the community health programs.

A single statistics system has been established through the design of forms that will compile the most accurate information for the future use of both institutions. To the present time, the information compiled by the MOH did not include the health services provided by the social security institutions. The strategy for the national development is based on five objectives for the design of policies and programs:

- a. Increase the national wealth and diversify the exportations.
- b. Integrate the regional national economy.
- c. Social integration of the country.
- d. Institutional reinforcement and development.
- e. Reinforce the awareness and the nation's personality.

The principal guideline of the health policy is to increase the levels of health of the entire population. This global purpose is determined by a combination of objectives, policies and programs towards its realization, explained, as follows:

A. The objectives: Keeping in mind the achievements within the health sector, following are the main objectives considered as such by the GOP in the health sector:

1. Accelerate the process to incorporate the margined population especially that residing in the rural area, to the health delivery systems.
2. Guarantee the quality and efficiency of the health services.
3. Decrease the environmental risks, especially those related to everyday life.
4. Decrease the morbi-mortality of mothers and children, and maintain those prevailing in the population over 15 years old.
5. Achieve the integration of a single system to provide health services throughout the country.

The Policy: The health policy can be summarized in the following points:

1. Assign and organize the resources for providing the minimum basic and integrated services, to the groups in the margined population.
2. Increase the organization and education programs on health in the communities.

3. Create a regional single health system, through the integration of the resources of all the agencies within the State providing health services.
4. Recuperate materially and operationally the health facilities.
5. Reorient and increase the formation of the human resources of the health sector.
6. Increase the activities related to the prevention and protection of health.
7. Maintain in good condition and make more efficient the health delivery system presently provided in the urban area.

The policies originate programs for which budgets are assigned.

These programs are activities planned for the achievement of the goals.

The programs and goals are divided into three areas:

Services for the people, for the environmental health, and fundamental activities to support these services.

The programs and goals have been prepared for a period of ten years as of 1971, and based upon the Decennial Plan for Health in the Americas, adapted to the health conditions prevailing in the country.

**MINISTRO  
VICE-MINISTRO**

UNIVERSIDAD  
I.D.A.A.N.  
C.S.S.

ASESORES INTERNACIONALES  
COM. NACIONAL DE POLITICA DEMOGRAFICA

ASESORIA LEGAL  
RELACIONES PUBLICAS  
ASUNTOS INTERNACIONALES

ESTUDIOS DE POBLACION  
DOCENCIA E INVESTIGACION  
ORGANIZACION Y EDUCACION DE LA COMUNIDAD

**DIRECCION GENERAL DE SALUD**

**DIRECCION ADMINISTRATIVA**

CONSEJO TECNICO  
ESTADISTICA Y COMPUTOS ELECTRONICOS

AUDITORIA  
ORGANIZACION Y METODO

DIRECCION DE SALUD FAMILIAR  
DIRECCION DE NUTRICION  
DIRECCION DE PLANIFICACION  
DIRECCION DE SALUD AMBIENTAL  
DIRECCION DE EPIDEMIOLOGIA

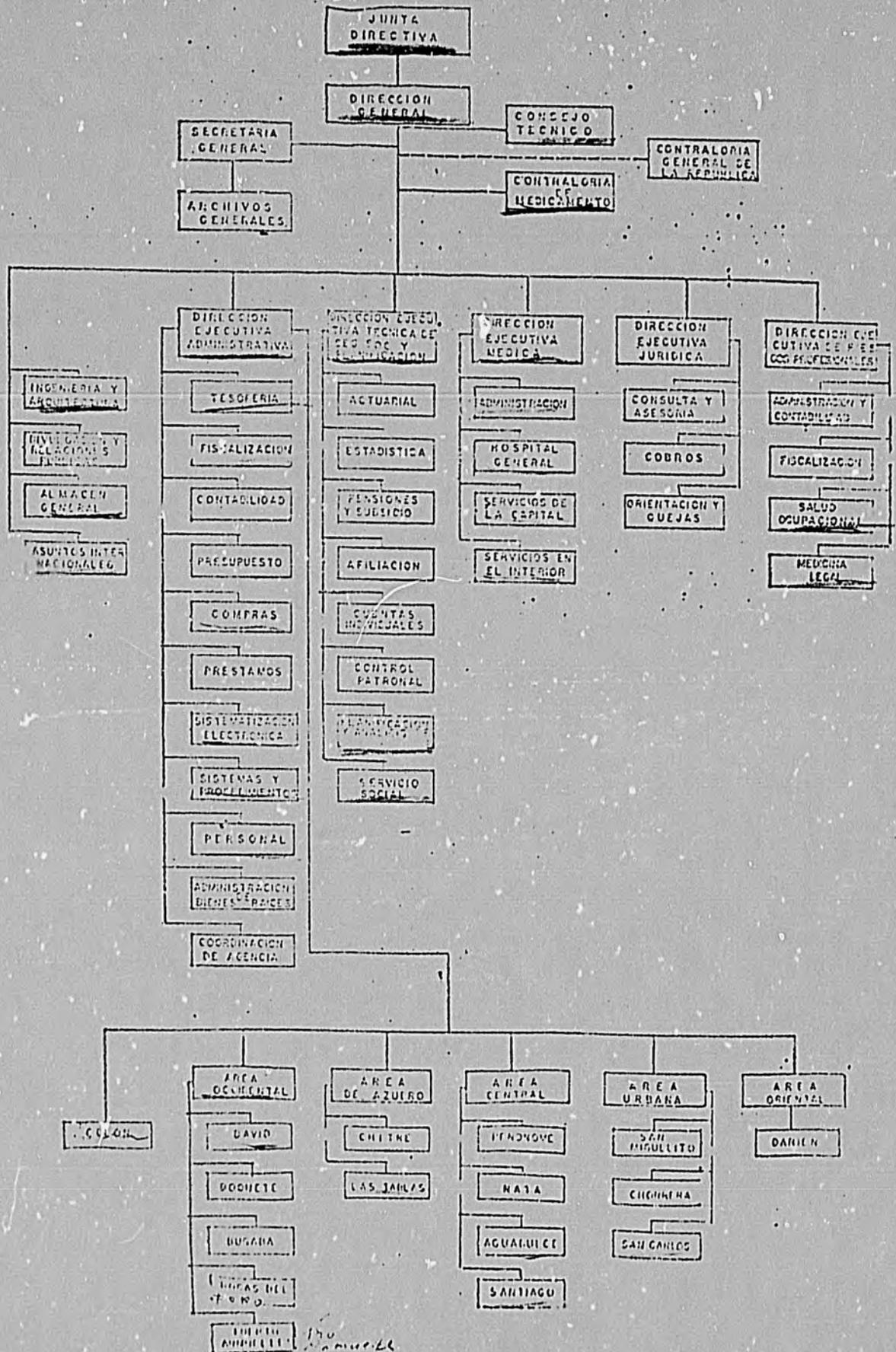
INGENIERIA Y ARQUITECTURA  
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MANTENIMIENTO Y REPARACION EQUIPO MECANICO  
ALMACEN CENTRAL

SALUD CENTRAL  
SALUD MENTAL  
SALUD ADULTOS  
SALUD NIÑOS INF.  
ENFERMERIA  
PROGRAMACION PRESUPUESTARIA  
PROGRAMACION DE SALUD  
VETERINARIA Y ALIMENTOS  
FARMACIA Y DROGAS  
CONTROL DE VECTORES  
ENFERMEDADES TRANSMISIBLES  
LABORATORIO CENTRAL

REGION DE BOCAS DEL TORO  
REGION DE CHIRIQUI  
REGION DE VERAGUAS  
REGION DE AZUERO  
REGION DE COCLE  
REGION DE PANAMA  
REGION DE COLON  
REGION DE DARIEN  
HOSPITALES NACIONALES  
REGION METROPOLITANA

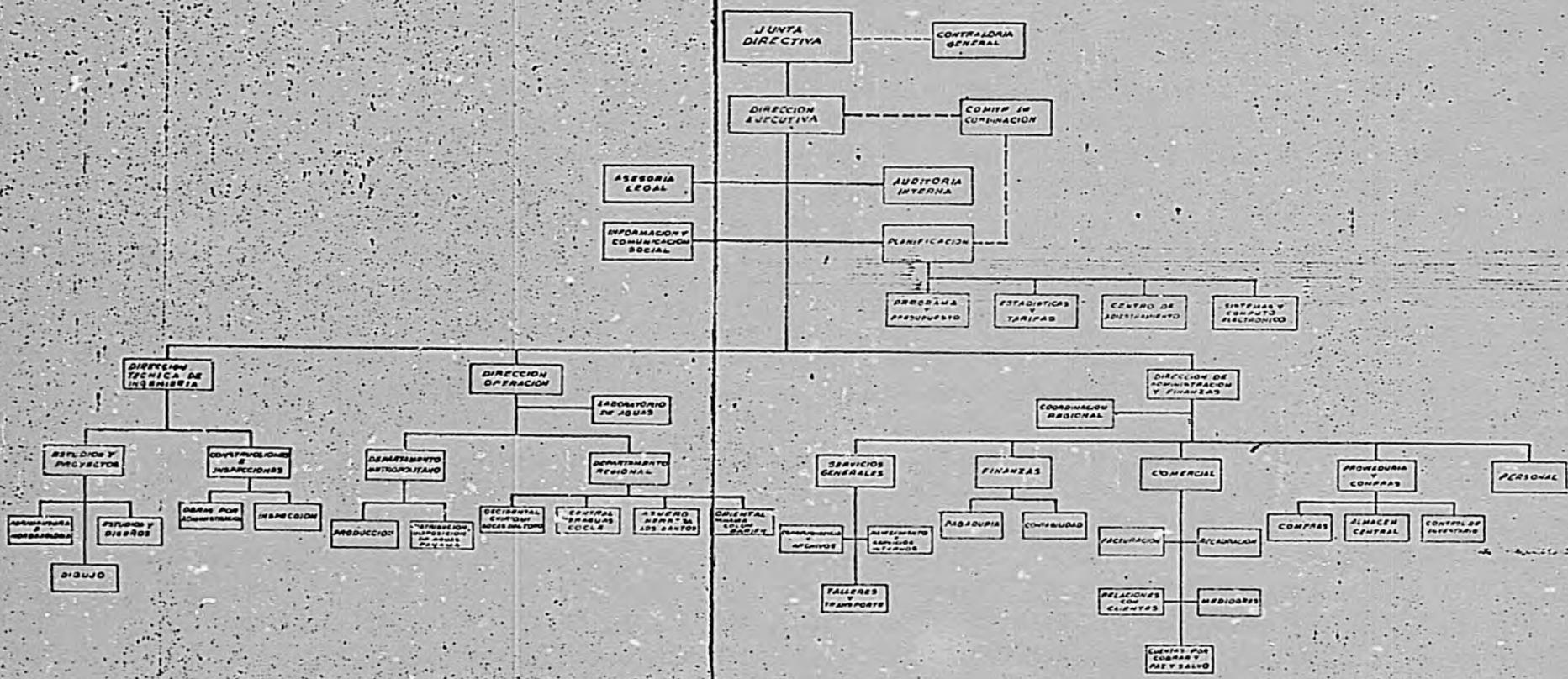
# CAJA DE SEGURO SOCIAL 19

## ORGANIGRAMA GENERAL



# IDAAN

## ESTRUCTURA ORGANICA



### ESTRUCTURA REGIONAL TIPICA

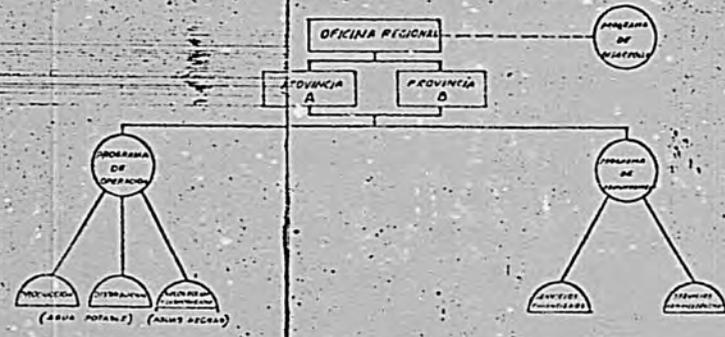


Table No.

PANAMAGENERAL, MATERNAL, INFANT, NEONATAL, 1 TO 4 YEARS, MORTALITY RATES

Province	General Mortality Rate <sup>1/</sup>		Maternal Mortality Rate <sup>2/</sup>		Infant Mortality Rate <sup>2/</sup>		Neonatal Mortality Rate <sup>2/</sup>		1 to 4 Years Mortality Rate <sup>3/</sup>	
	1970	1974	1970	1974	1970	1974	1970	1974	1970	1974
Total	7.1	5.6	1.4	0.8	40.5	32.9	20.8	17.6	7.5	4.6
Bocas del Toro	9.1	6.0	0.5	1.5	52.0	34.3	19.6	12.8	13.5	8.7
Coclé	8.0	5.1	1.6	0.7	44.6	35.5	17.8	19.7	11.0	3.9
Colón	8.0	6.8	1.6	1.3	44.6	39.4	21.7	17.8	7.7	4.6
Chiriquí	7.6	6.1	1.9	0.5	44.6	40.5	21.5	20.8	9.1	6.4
Darién	8.3	4.4	4.3	0.0	63.6	46.9	21.6	26.8	11.2	6.5
Herrera	7.7	5.5	0.7	0.0	39.5	33.4	24.0	14.9	5.4	2.9
Los Santos	6.6	5.7	0.4	1.2	30.2	13.0	19.7	6.2	2.4	2.1
Panamá	5.8	4.6	0.8	0.7	33.7	25.6	18.7	16.4	4.4	2.0
Veraguas	9.2	8.0	2.5	1.9	47.3	45.6	27.1	20.8	12.7	11.0

<sup>1/</sup> per 1,000 inhabitants<sup>2/</sup> per 1,000 live births<sup>3/</sup> per 1,000 inhabitants 1-4 years of age

Sources: Estadística Vitales, D.E.C.

Table No.

THE 10 LEADING CAUSES OF MEDICALLY CERTIFIED DEATHSPANAMA

8th Edition ICDA	Position		Causes	No. of Deaths		Rates *	
	1970	1974		1970	1974	1970	1974
410-414	1	1	Ischemic heart disease	896	736	62.5	45.5
800-999 E 800-E999	4	2	Accidents, suicide and homicide	485	698	33.8	43.1
140-209	2	3	Neoplasms	576	630	40.1	38.9
430-438	5	4	Cerebrovascular disease	428	539	29.8	33.3
480-486	3	5	Pneumonia	526	414	36.7	25.6
000-009 561 305.5	6	6	Gastroenteritis	344	222	23.9	13.7
	8	7	Infant mortality all causes	203	203	14.1	12.5
630-634 760-779	9	8	Complications of pregnancy, child birth and the puerperium	199	200	13.9	12.3
010-019	7	9	Tuberculosis	211	171	14.7	10.6
390-392	10	10	Diseases of the circulatory system	103	150	7.2	9.3
Total/10 leading causes				3,971	3,963	276.8	244.9
Other Causes				1,870	1,824	130.4	112.7
General Total				5,841	5,787	407.2	357.6

\* Death per 100,000 inhabitants

Source: Estadísticas Vitales, D.E.C.

Table No.

PANAMAGENERAL, MATERNAL, INFANT, NEONATAL, 1 TO 4 YEARS, MORTALITYIN THE REPUBLIC OF PANAMA 1970-1974

Province	<u>General Mortality</u>	<u>Maternal Mortality</u>	<u>Infant Mortality</u>	<u>Neonatal Mortality</u>	<u>1 TO 4 YEARS Mortal.</u>
	1970	1974	1970	1974	1970
Total	10,225	9,001	72	43	2,156
Bocas del Toro	398	297	1	3	98
Coclé	943	663	8	3	221
Colón	1,080	1,017	8	6	220
Chiriquí	1,802	1,591	17	4	404
Darién	188	105	4	0	59
Herrera	558	427	2	0	107
Los Santos	476	419	1	2	69
Panama	3,382	3,170	16	15	690
Veraguas	1,398	1,312	15	10	288

Source: Estadísticas Vitales de D.E.C.

PANAMA

Table No.

THE 10 LEADING CAUSES OF DEATH

1960

<u>7th Edition ICDA</u>	<u>Position</u>	<u>Causes</u>	<u>No. of Deaths</u>	<u>Rates*</u>
000-009 561 305.5	1	Gastroenteritis	688	63.9
800-999 E800-E999	2	Accidents, suicide and homicide	520	48.5
480-486	3	Pneumonia	497	46.2
140-209	4	Neoplasms	470	43.7
430-438	5	Cerebrovascular diseases	427	39.7
390-392	6	Disease of the circulatory system	377	35.0
490-493	7	Bronchitis and asthma	337	31.3
010-019	8	Tuberculosis	288	26.8
033	9	Whooping cough	243	22.6
630-634	10	Complications of pregnancy	220	20.4
Total/10 leading causes			4,067	378.1
Other Causes			4,320	401.6
General Total			8,387	779.8

\* Death per 100,000 inhabitants  
Source: Estadísticas Vitales, D.E.C.

Table No.

THE 10 LEADING CAUSES OF DEATHPANAMA

8th Edition ICDA	Position		Causes	No. of Deaths		Rates <sup>+</sup>	
	1970	1974		1970	1974	1970	1974
800-999	2	1	Accidents, suicide and homicide	754	882	52.6	54.5
410-414	1	2	Ischemic heart disease	902	742	62.9	45.8
140-239	5	3	Neoplasms	656	701	47.3	43.3
430-438	6	4	Cerebrovascular disease	537	611	37.4	37.8
480-486	3	5	Pneumonia	710	532	49.5	32.9
000-009 561 305.5	4	6	Gastroenteritis	673	500	46.9	30.9
390-392	10	7	Diseases of the circula- tory system	201	236	14.0	14.6
630-634 760-779	9	8	Complications of pregnancy child birth, and the puer- perium	218	214	15.2	13.2
	8	9	Infant mortality all causes	220	213	15.3	13.2
010-019	7	10	Tuberculosis	278	212	19.3	13.1
<b>TOTAL/10 leading causes</b>				<b>5,149</b>	<b>4,843</b>	<b>484.3</b>	<b>299.3</b>
<b>Other Causes</b>				<b>5,076</b>	<b>4,158</b>	<b>353.9</b>	<b>256.9</b>
<b>General Total</b>				<b>10,225</b>	<b>9,001</b>	<b>712.8</b>	<b>556.3</b>

\* Death per 100,000 inhabitants

Source: Estadísticas Vitales, D.E.C.

PANAMA

Table No.

## POPULATION

BIRTH, DEATH, NATURAL GROWTH RATES  
(rates per 1000 persons)

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Total Births	41.0	37.1	37.2	36.0	33.2	32.6
Total Deaths	8.4	7.1	6.7	6.0	5.8	5.6
Total natural Growth	32.6	30.0	30.5	30.0	27.4	27.0
Urban Births	39.1	36.0	37.0	35.0	31.6	32.2
Urban Deaths	7.2	5.5	6.2	5.6	5.3	5.1
Urban Nat. Growth	31.9	30.5	30.8	29.4	26.3	27.1
Rural Births	42.4	38.1	37.4	37.0	34.6	33.0
Rural Deaths	9.2	8.4	7.1	6.3	6.3	6.0
Rural Nat. Growth	33.2	29.7	30.3	30.7	28.3	27.0
<b>3 Principal Cities</b>						
<u>BIRTHS</u>						
Panama	35.8	31.5	33.6	31.6	28.1	28.6
Colon	29.4	35.6	35.4	32.1	31.8	31.5
David	71.8	56.2	56.2	29.3	51.4	53.1
<u>DEATHS</u>						
Panama	6.2	5.3	6.1	5.3	5.0	4.9
Colon	9.4	7.8	8.9	7.7	7.8	7.5
David	13.4	10.4	8.3	8.9	8.7	7.7
<u>NATURAL GROWTH</u>						
Panama	29.6	26.2	27.5	26.3	23.1	23.7
Colon	20.0	27.8	26.5	24.4	24.0	24.0
David	58.4	45.8	47.9	50.4	42.7	45.4

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>PANAMA</u>						
<u>Provinces</u>						
Births	38.2	35.2	35.3	34.2	31.1	31.5
Deaths	6.6	5.8	5.7	5.0	4.9	4.6
Natural Growth	31.6	29.4	29.6	29.2	26.2	26.9
<u>CHIRIQUI</u>						
Births	46.3	38.2	39.0	40.1	35.3	35.6
Deaths	7.9	7.6	6.7	6.7	6.2	6.1
Natural Growth	38.4	30.6	32.3	33.4	29.1	29.5
<u>VERAGUÁS</u>						
Births	45.5	40.0	38.8	38.2	35.6	33.1
Deaths	11.4	9.2	8.8	7.1	7.4	8.0
Natural Growth	34.1	30.8	30.0	31.1	28.2	25.1
<u>COCLE</u>						
Births	42.7	41.8	40.1	38.9	37.2	33.3
Deaths	10.2	8.0	6.9	6.2	6.6	5.1
Natural Growth	32.5	33.8	33.2	32.7	30.6	28.2
<u>COLON</u>						
Births	37.4	36.6	36.6	34.4	32.9	33.1
Deaths	11.3	8.0	8.1	7.4	7.1	6.8
Natural Growth	26.1	28.6	27.0	27.0	25.8	26.3
<u>HERRERA</u>						
Births	38.6	37.2	37.5	31.7	30.2	29.9
Deaths	7.2	7.7	6.8	6.2	6.0	5.5
Natural Growth	31.4	29.5	30.7	25.5	24.2	24.4

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<u>LOS SANTOS</u>	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Births	37.1	31.6	31.0	27.9	24.3	22.6
Deaths	6.5	6.6	6.3	5.5	5.8	5.7
Natural Growth	30.6	25.0	24.7	22.4	18.5	16.9
<u>BOCAS DEL TORO</u>						
Births	46.9	43.1	46.8	48.7	49.8	46.8
Deaths	12.8	9.1	8.2	6.0	6.7	6.0
Natural Growth	34.1	34.0	38.6	42.7	43.1	
<u>DARIEN</u>						
Births	39.4	40.8	41.7	35.8	34.1	33.5
Deaths	7.5	8.3	5.4	5.0	4.6	4.4
Natural Growth	31.9	32.5	36.3	30.8	29.5	29.1

Source: Estadísticas Vitales: D.E.C.

## Morbidity

### Summary

The outstanding aspects of the results of the studies made on the outpatient morbidity and on hospitalizations, can be summarized as follows:

The diagnoses studied correspond to the services provided by the MOH. The CSS, which produces half of the consultations on morbidity in the country, has not been included in the data compiled, due to the current Statistical System.

The hospitals provided 47% of the consultations, the health centers the remaining 53%; 34% of the total/<sup>figure stems</sup>from the health centers in the City of Panama. Facilities located in the urban area provided 78.5% of the consultations; 21.5% in the rural area.

Most problems in morbidity are present in the adult population; with exceptions in Coclé, Chiriquí, and Veraguas where the demand from minors under 15 years of age was above number of adult consultations.

Illnesses involving diarrhea are among the ten principal causes in five Provinces (Colon, Chiriquí, Darien, Herrera and Veraguas), and intestinal parasites (Helminthiasis) in all nine provinces, with a high incidence in the rural areas due to lack of facilities such as potable water, and excreta disposal. Among the most affected by these diseases is the 1-5 age group.

Respiratory diseases in all the provinces, rank high on the list, especially in the ages under 15 years, in both urban and rural areas.

Accidents are the main cause for demand of services in 7 of the 9 provinces, and in 8 of these, the demand is for hospitalization services.

Genitourinary diseases are among the ten causes for consultation and hospitalization in all 9 provinces, with the highest incidence in the 15-44 age group. This same group is largely affected by venereal diseases (syphilis and gonorrhoea).

Complications resulting from pregnancy, partum and postpartum, as well as abortions, are among the first in 7 out of 9 provinces, creating hospitalization problems; and rank the second and fourth places respectively, in the list of the principal causes at a national level. This shows the seriousness of the difficulties presently affecting the functional level of the maternal programs.

Symptom and inaccurately defined morbid conditions, are the second most important groups within the ten diagnoses most frequently found in out-patients, for a total of 11%. In the hospitalization diagnoses, this group occupies the first place, with 13%, with an average number of hospitalization of 8.7, which does not justify this phenomena. In Veraguas and Herrera, the figures represent over 40% of the hospitalizations.

The concentration of the morbidity services to out-patients represents 2.0 consultations per person, per year, children less than one

year old, an average of 3.6 consultations and adults 2.0 consultations per person per year.

HEALTH INDICATOR BY AREAS URBAN-RURAL OF THE REPUBLIC OF PANAMA  
1970 and 1974

INDICATORS	1970			1974		
	Total	Urban	Rural	Total	Urban	Rural
Population .....	1,434,400	682,376	752,024	1,621,061	810,621	810,420
Population Density (1) .....	18.9	---	---	21.4	---	---
Life Expectancy .....	64.9	---	---	66.5	---	---
Rate of Fertility (p) (2) .....	131.9	108.7	158.4	110.1	98.2	125.1
Rate of Births (p) (3) .....	37.1	36.0	38.1	31.2	31.6	30.9
Rate of mortality (p) (3) .....	7.1	5.5	8.4	5.3	5.0	5.6
Rate of infant mortality (p) (4) .....	40.5	29.8	48.8	31.0	24.7	37.2
Rate of Mortality (ages 1-4) (5) .....	6.4	3.1	8.7	4.7	2.0	6.9
% of professional attention at childbirth.....	65.0	97.3	39.7	72.6	97.9	47.6
Rate of Maternal mortality (4) '.....	1.4	0.6	1.9	0.8	0.4	1.1
Natural growth .....	30.0	30.5	29.7	25.9	26.6	25.3
Hospital beds (3) .....	3.7	5.1	0.2	3.8	6.8	0.4
Doctors (6) .....	6.3	11.1	1.4	8.6	14.0	2.2
Byx Nurses (6) .....	7.4	13.6	1.1	7.4	12.7	1.1
Auxiliary personnel (6) .....	7.7	14.1	1.8	14.0	16.9	1.9
% Budget for Health/National Budget .....	7.8	---	---	8.1	---	---
Daily caloric intake (7) .....	2,095	2,101	2,089	---	---	---
Daily protein intake (7) .....	65.5	70.9	60.1	---	---	---

(p) Preliminary Figures

(1) Population by square kilometer

(2) Rate for 1,000 women, age 10-49

(3) Rate for 1,000 inhabitants

(4) Rate for 1,000 live births

(5) Rate for 1,000 inhabitants-ages 1 to 4

(6) Rate for 10,000 inhabitants

(7) Refers to census taken in 1967

-- Figures not available

Source: - Estadística y Censo, Contraloría General de la República.

FAMILY PLANNING PROGRAM - MINISTRY OF HEALTH

(1)  
Family Planning Program

Family Planning is an integral part of the Maternal/Child Health Program of the Ministry of Health.

In addition to the MOH, there are other providers of contraceptive services in Panama. These include the social security system (CSS), APLAFA, the Canal Zone (services to Panamanian employees) and the private sector. The CSS has not organized family planning program, but contraceptives are prescribed by the OB/GYN department. However, no records are kept of this. A national fertility survey carried out in 1974, however, found near 14% of users listing the CSS as source, 50% from MOH and the rest from private physicians, APLAFA, pharmacies and other sources. (2) Accompanying Table summarizes this data. APLAFA reports some 500 new acceptors per year as of 1974.

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(1) Ministry of Health-Maternal Child Department  
Family Planning Section  
Summary of the Health Sector Program in Family Planning  
Prepared by the Health Sector Assessment in October 31, 1975.

(2) The Encuesta Nacional de Fecundidad was a supplement to April 1974 National Household Survey. Based on 11,000 households sample of 3 tests: Panama City, other urban and rural.

**HEALTH SERVICES COVERAGE ACCORDING TO LOCALITY SIZE AND ACCESSIBLE POPULATION  
IN THE REPUBLIC OF PANAMA**

1971 and 1974

CHARACTERISTICS	YEAR		Difference
	1971	1974	
A. Location of less than 2,000 inhabitants			
1. Population in localities of less than 2,000 inhabitants	764,860	817,290	6.9
2. Accessible population to services provided by elementary units (1)	217,662	240,734	10.6
3. Number of elementary units	135	142	5.2
4. Population served by elementary units	110,460	135,424	22.6
5. Population served by each elementary unit (percentage)	818	954	16.6
6. Accessible population served (%)	50.7	56.3	5.6
B. Locations of 2,000-20,000 inhabitants			
1. Resident inhabitants	142,070	156,720	10.3
2. Number of attending units	21	40	90.5
3. Percent of population served	68.9	71.5	2.6
C. Locations of 20,000-100,000 inhabitants			
1. Resident inhabitants	110,820	147,060	32.7
2. Number of attending units	10	17	70.7
3. Percent of population served	72.8	77.3	4.5
D. Locations of 100,000 inhab. or more			
1. Resident inhabitants	360,550	497,030	37.9
2. Number of attending units	16	21	31.3
3. Percent of population served	83.7	85.2	1.5

(1) Refers to field locations, health subcenters and health centers located in towns of less than 2,000 inhabitants.

The integration of the health sector will aid the integration of all family planning services, since one of the goals will be to develop a common CSS-MOH approach to MCH and family planning.

The data presently available in the Republic of Panama on the use of contraceptives is not accurate enough to determine the real situation of the Family Planning Program, neither does it provide a formula to know the exact number of fertile females now using contraceptive methods.

In 1964, a survey was carried out on the fertility of the females in the City of Panama, which suggested that approximately 3 out of 5 women were using or had used for a certain period of time, some type of contraceptive method; also, that the most popular ones were, in their order: vaginal douching, sterilization, condoms, rhythm, and withdrawal. The orals and diaphragms were used only by 11% of the population in 1964.

In 1967 and 1968, a study on abortion was carried out, but no written report was made available.

In 1974, research on fertility was promoted. According to the results, approximately one third of the females in reproductive age (15-49) used some kind of contraceptive method, and more than half of the females sought the services of a private doctor for prescribing a method.

In August 1974, a survey was conducted on the attitudes presented by a total of 12,938 females involved in the Family Planning Program, by SANISA, a Panamanian firm specialized in investigation and research.

The objectives of the study were based on the hypothesis that "The females under a Family Planning Program had satisfactory attitudes towards spacing their families, as a direct result of the action taken under the Programs carried out by the Ministry of Health". They see this program as a solution to their socio-economic problems, and are aware of the effect it has on their present and future lives.

The objectives established were as follows:

- a. To learn about their attitudes toward abortion.
- b. Measure the knowledge the mothers had on the programs, methods and effects of Family Planning.
- c. Learn about the attitudes they have on the amount of children they prefer to have.
- d. Learn about some of the socio-economic characteristics of the families that are using the services of the Family Planning Program.

In 1975, the Westinghouse, Population Center, Division of Health Systems, through a contract with AID/W, completed a study on the commercial distribution of contraceptives in Panama. Actually, the Ministry of Health is involved in two studies: one regarding fertility, the other, a follow-up on the females utilizing the Family Planning services.

The Sector Assessment analysis of fecundity and family planning has shed further light on the nature of contraceptive users.<sup>(3)</sup> Whereas only 11% of MOH program acceptors used pills and IUD method in 1964, by 1974, 74% were on pills and 21.6% with IUD. This 95% concentration on

(3) Federico Guerra, Evolución de la Fecundidad, Panama, October 1975, pages 21-26.

these two methods is not typical of non-MOH contraceptive users, according to 1974 Household Survey. Here less than 50% used these methods, 36.2% sterilization and 13%, other.

It is to be noted that available data indicate that Panama has one of the greatest demands for sterilization in Latin America. Currently, MOH policy permits sterilization only after age 26 and when a woman has five children. Additionally, no creams, foams or diaphragms were distributed in 1974, and only 1,878 condoms were distributed. But between January and September 1975, 207,000 condoms were distributed. (4)

Relating the number of MOH program acceptors to the number of fertile women by province, one can see a clear association between the two provinces of highest % of acceptors and those of lowest population growth, and even infant mortality - Los Santos and Herrera.

One final observation on acceptors relates to the rural vs. urban acceptors and type of contraception. The vast majority of users in cities of Panama and Colon (65.5%) used IUD's, while only 34.7% in the rest of Panama. But just the opposite true for oral pills - 32% in the cities, and 67.9% in the rest of the country. Several factors may influence this, such as educational level, but perhaps most of all is the distribution of health personnel. Two-thirds of IUD's were inserted by doctors, whereas nearly 3/4 of oral contraceptives were delivered by personnel other than doctors.

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(3) Data supplied by MOH, Maternal Child Health Department in letter to Felix P. Hurtado, M.D., USAID/Panama, October 31, 1975

It is expected that by 1976, an evaluation of the Family Planning Program in Panama will be conducted, taking into consideration the fact that the program has lasted ten years, and that it has followed two trends:

- a. First, under the responsibility of a voluntary agency, (APLAFA) mainly in the urban areas; and
- b. second, the Government of Panama assigned this responsibility to the Ministry of Health to provide all the services pertaining to Family Planning at a National level.

1. Family Planning Official Policy

The policy presently followed by the Ministry of Health is:

- a. Emphasize the responsibility of parenthood in all the Family Planning Programs.
- b. Promote the use of temporary contraceptive methods.
- c. Always carry out the programs under the permanent supervision of the Ministry of Health and bearing in mind the recommendations presented by the Offices of Demography, Population and Statistics.

II. SUMMARY

- a. The Government of Panama approves and supports the Family Planning Program, as an integrated service of the Ministry of Health (MOH) Maternal/Child Health Program.
- b. The MOH has a large network of health facilities (urban and rural areas) providing family planning services.
- c. Hospital and clinical personnel consider family planning an important component of the maternal/child health services.

- d. The MOH and APLAFA have received and continue to receive, considerable financial and advisory assistance from international agencies, such as AID, IPPF, Pathfinder, OMS, U.N.
- e. Panama has good educational institutions for training physicians, nurses auxiliary nurses, and other public health professional and paraprofessional personnel.
- f. Family Planning services are provided free of charge.
- g. There is great acceptance on the part of the physicians to allow well-trained graduate nurses and paraprofessionals to give family planning services, including pelvic examinations and insertion of IUD's.
- h. The Panama health system depends highly on community participation.
- i. A large number of hospital and clinical personnel (although by no means a substantial amount) has been duly trained, to give reliable family planning services.
- j. Apparently a high percentage of the populace of Panama desires to limit the size of the family and seek services that will provide contraceptives. Current reports suggest that many fertile women desire sterilization as a permanent birth control method.
- k. A very limited number of auxiliary nurses (2) have had the opportunity to be trained in family planning practice and theory. Only 11 graduate nurses have been trained at Harbor Hospital, Torrance, California, and Denver, Colorado; and 2 in Puerto Rico. Approximately 15 physicians (OB-GYN) have received training at John Hopkins Hospital, Maryland, Washington University Hospital, St. Louis, Mo., and other

hospitals in U.S., Mexico and Puerto Rico. Community Health Workers have been trained at the provincial and community levels, i.e. - 50 from Colon and 27 from Bocas del Toro went through both basic and advanced training, which included Sex Education and Use of Contraceptives.

The Community Nursing School in Los Santos, is providing family planning instruction to the students enrolled. At present, plans are under discussion to incorporate a Maternal/Child Health-Family Planning Program into the curriculum of this school, for training graduate nurses, auxiliaries and community health workers, somewhat similar to the Harbor Hospital Women Care Specialist Program.

Cancer Detection and the Control of Venereal Disease Programs are also two major areas of great interest within the Maternal/Child Health and Family Planning Departments of the MOH.

DEMOGRAPHY AND VITAL STATISTICS

I. CONDITIONS AT THE NATIONAL LEVEL

The population of the Isthmus of Panama covers an area of 77,082 Km<sup>2</sup>, including 1,432 Km<sup>2</sup> of the national territory known as the Canal Zone. The area with the highest population is situated in the Pacific region, with fertile lowlands, with important agricultural exploitations, and cattle are found, and, since colonial days where the first human beings also began to concentrate.

Panama continues to be the least populated country in the Central American area, with a density of only 21.4 inhabitants per Km<sup>2</sup> in 1974, an increase of 13.2% as compared to 1970, an annual rate of 2.6%, showing 61.1 inhabitants per Km<sup>2</sup> in the Province of Panama and 1.4 in the Province of Darien. The provinces in the Caribbean area are noted for their relatively low population, Bocas del Toro with 5.5 inhabitants per Km<sup>2</sup>; and Colon with 28.7 inhabitants per Km<sup>2</sup>, the underpopulation in the latter is not seen, when compared to the City of Colon, with 58.5% of the total population of the province, leaving the remaining areas with a density of 11.9 inhabitants per Km<sup>2</sup>. San Blas, an indigenous configuration of Islands, established in 1934, has 8.4 inhabitants per Km<sup>2</sup>, and is the last area in this versant.

During the present decade the population of Panama increased at an annual rate of 3.0%, as a result of a relatively high birth rate, and a low mortality rate. Due to these facts, the time required for doubling the population has been reduced from 44 years, at the beginning of the Century, to 25 in 1950, which shows that, in practice it has increased four times its size during the last 70 years. However, the trend

(1) Medica, Vilma - La Población de Panama, C.I.C.R.E.D., 1974

since 1970 is clearly downward, falling to 2.6% in 1974.

The mortality rate has taken a favorable turn during the past four years with a drop in infant mortality from 37.1/1000 in 1970 to 31.2 in 1974, and general mortality from 7.1 to 5.3. Several reasons have been attributed to this phenomena, although some question the magnitude of the tendencies, due to the constant underreporting of the vital statistics data. (One study calculates the omission of the deaths occurred during 1960 to 1970 to be 20%<sup>(2)</sup> ).

The progressive increase in the professional attention received during ~~the~~ childbirth and fertility control have positively improved the maternal mortality rates, reducing the risks of death of the future mothers. An increase of medical attention is desirable, however, so as to detect with greater details the existing problems. The figures reached, 0.8 deaths per 1,000 live births, places Panama at the level of other countries with a higher degree of development.

## II. CONDITIONS AT THE PROVINCIAL LEVEL

### 1. Bocas del Toro

This province is located in the northeast zone of the Republic, it boards with the Republic of Costa Rica, with an area of 8,917 Km<sup>2</sup>, and a population estimated at 49,440 inhabitants in 1974, and a density of 5.5 inhabitants per Km<sup>2</sup>. According to the information available, the natural increase of the population is the highest in the country, with 3.6%, due to a high birth rate 41.2%, and a low mortality 5.6%. If this condition prevails, the population will double itself in a period of 20 years, but even with this alternative, the population of the

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(2) Médica, Vilma N. - Estimación de Indicadores Demográficos de la República de Panamá para el Período 1950-60 y Proyecciones de la Población por Sexo y Grupos de Edad, Años 1960-2000 CELADE, Santiago de Chile, 1973.

province would only increase by 11 inhabitants per Km<sup>2</sup>, if relatively large internal migrations do not take place.

## 2. Province of Cocle

Situated in the Central Region of the country, with an area of 5,035 Km<sup>2</sup>, it is a province with relatively high density, 28.3 inhabitants per Km<sup>2</sup> in 1974, which had increased by 20% in 1970, resulting in a natural increase of 2.4 in 1974, a birth rate of 28.7%, and mortality 4.2% (lower than the national rate).

## 3. Province of Colon

Geographically located in the Caribbean Sea area, the Province of Colon has an area of 4,259 Km<sup>2</sup>, and 58% of the population is concentrated in the city of the same name. It also has a large amount of resources because of its direct connection to the activities carried out in the Panama Canal. It has a density of 28.7 inhabitants per Km<sup>2</sup>, and a natural increase of 2.6, supported by a birth rate of 33.6 and a general mortality of 7.6% inhabitants. This accounted for the second highest mortality rate in the country in 1974.

## 4. Province of Chiriqui

The Province of Chiriqui, with an area of 8,758 Km<sup>2</sup>, is situated in the extreme western part of the country, it borders with the Republic of Costa Rica and has a density of 29.9 inhabitants per Km<sup>2</sup>. It ranks third with the highest density, and is the fourth in size. With a birth rate of 33.4 live births, and a general mortality of 2.8. The District of Baru has 3.2 in, and 2.1 in Bugaba, although there is a tendency towards a decrease in the birth rate. Same is sufficiently high, in order to assure a ratio of increase in the population to be at much higher levels for the coming years.

This province, with large mountainous areas and a nomadic indigenous population, has great problems of accessibility which reduces the possibilities of providing the population with adequate health services.

5. Province of Darien

This is the province with the largest territorial expanse, it borders with the Republic of Colombia, and an area of 16,803 Km<sup>2</sup>. Its characteristics include large jungles, greatly hampering accessibility and more difficulties in becoming populated. Its density has not changed from 1.4 inhabitants per Km<sup>2</sup>, in the past 5 years, this defines the population of the province as predominantly rural.

The health indicators, because of the difficulties in communication, are strongly under-reported and of unknown magnitudes. We comment on the existing figures, knowing before hand that these should be considered with some precautions.

The 24.8 birth rate is the second lowest and the mortality 3.5 ranks first. This situation places the population increase in Darien at 2.1, second, the Province of Los Santos with the highest, although with different socio-economic conditions to those prevailing in Darien. The birth rate tends to show a decrease during the last 10 years. Therefore, the plans for incorporating the province into the national development system depend upon the new communications (Interamerican Highway), that will provide a strong migratory current, in view of the existing potentialities for the new settlers.

6. Province of Herrera

This province is situated in the Azuero Peninsula, in the southern part of the Republic, with an area of 2,427 Km<sup>2</sup>, and a population density of 32.1 inhabitants per Km<sup>2</sup>. Known for its satisfactory means

of communication, the vital statistics available during the past year can be taken as accurate. The birth rate reflects a tendency to decrease and during a five-year period, from 22% of 27 live births, to 29%, followed by a general mortality decrease from 7.7 in 1970 to a 5.1 in 1974, with a national increase in its population of 2.4%. These achievements have been possible due to the wide range of health services coverage and the high degree of interests developed among these communities in matters concerning health.

#### 7. Province of Los Santos

Situated in the extreme part of the Azuero Peninsula, with an area of 3,867 Km<sup>2</sup>, it has a population density of 18.9 inhabitants per Km<sup>2</sup>. The relatively sparse population of the province is justified because it has undergone a strong migration of its inhabitants towards other areas of the country, and an ever decreasing birth rate that in 1974 was 22.1, the lowest in the country, followed by a general mortality rate of 5.3. It has a natural increase of 1.7%, strongly influenced by the surrounding districts in the area of Las Tablas, with a birth rate of 14.3 and general mortality rate of 4.4, and infant mortality rate of 4.6 which indicates a natural growth rate of only 1.0. Note that proximity to Herrera Province facilities means many vital events from Los Santos residents are recorded in Herrera.

#### 8. Province of Panama

The Province of Panama, with an area of 12,392 Km<sup>2</sup>, accounts for 42.6 of the population of the country, concentrated in what is known as the Metropolitan area, which alone includes 33% of the national population.

For the purposes of health, it also comprises the Metropolitan Regions, the areas of La Chorrera and Chepo. The density of the population is 61.0 per Km<sup>2</sup>, ranging from 4.2 in Chepo to 156.0 in the Metropolitan area.<sup>(1)</sup>

The province shows a birth rate of 29.8 live births and 4.3 mortality, with a natural increase of 2.6. Nevertheless, the strong internal migrations show a much larger expansion with respect to the Metropolitan area, the volume of the population will duplicate in this area within the next 25 years.

#### 9. Province of Veraguas

This province, the third in territorial expanse with 11,086 Km<sup>2</sup>, is the only one that has coast on both sides. It has a population density of 13.7 inhabitants per Km<sup>2</sup>. The geopolitical conditions of this province, the difficulties of physical accessibility to the population, have prevented a greater development in the delivery of health services. In the majority of cases, these indicators, in some specific areas, show a lack of supplies in the areas requiring the basic health needs such as (Health, Education, Food, etc.).

The province presents the second birth rate in order of importance, 35.1 live births, with tendencies toward a decrease during the last years. Since 1970, these indicators have been reduced to 12%. The general mortality rate for 1974, with 8.1 inhabitants, is the highest in the country, with a clear prospect of deterioration since 1972, when the rate was 7.1, representing an increase of 15%. The relationship between these two elements allows us to assume a natural increase of 2.7, which will produce an increase in the population and of its potential demands for health services within the province.

<sup>(1)</sup> Panama's Metropolitan area comprises the Capital City and its vicinity

## TASA DE MORTALIDAD INFANTIL NEONATAL Y MATERNA

1970-1974

PROVINCIAS	Tasa de Mortalidad Infantil Por 1,000 Nacidos Vivos		Mortalidad Neonatal			Tasa de Mortalidad Neonatal Por 1,000 Nacidos Vivos		Mortalidad Materna			Tasa de Mortalidad Materna Por 1,000 Nacidos Vivos		
	1970	1974	1970	1974	% de Cambio	1970	1974	1970	1974	% de Cambio	1970	1974	Tasa de Cambio
TOTAL	40.5	32.9	1,106	889	(19.6)	20.8	17.6	72	43	(40.3)	1.4	0.8	(0.6)
Bocas del Toro	52.0	34.3	37	26	(29.7)	19.6	12.8	1	3	200.0	0.5	1.5	1.0
Coclé	44.6	35.5	88	80	( 9.1)	17.8	19.7	8	3	(62.5)	1.6	0.7	(0.9)
Colón	44.6	39.4	107	84	(21.5)	21.7	17.8	8	6	(25.0)	1.6	1.3	(0.3)
Chiriquí	44.6	40.5	195	180	( 7.7)	21.5	20.8	17	4	(76.5)	1.9	0.5	(1.4)
Darién	63.6	46.9	20	16	(20.0)	21.6	26.8	4	0	(100.0)	4.3	0.0	(4.3)
Herrera	39.5	33.4	65	33	(49.2)	24.0	14.9	2	0	(100.0)	0.7	0.0	(0.7)
Los Santos	30.2	13.0	45	10	(77.8)	19.7	6.2	1	2	100.0	0.4	1.2	0.8
Panamá	33.7	25.6	384	349	( 9.1)	18.7	16.4	16	15	(6.2)	0.8	0.7	(0.1)
Veraguas	47.3	45.6	165	111	(32.7)	27.1	20.8	15	10	(33.3)	2.5	1.9	(0.6)

1/ Defunciones por complicaciones del embarazo, del parto y del puerperio sin mención de complicación

Fuente: Estadísticas Vitales de D.E.C.

DEFUNCIONES EN LA REPUBLICA DE PANAMA POR PROVINCIAS DE RESIDENCIAS, SEGUN  
LAS PROVINCIAS CAUSAS DE MUERTE CON CERTIFICACION MEDICA 1970 - 1974

Causas	Bocas del								Panamá	Veraguas	Total	Orden de Prioridad
	Toro	Coclé	Colón	Chiriquí	Darién	Herrera	Los Santos					
Total 1970	228	234	779	881	56	215	175					
1974	181	222	813	859	32	196	196	2,982	291	5,841		
% de Cambio	(20.6)	(5.1)	4.4	(0.4)	(42.9)	(8.8)	12.0	2,921	367	5,787		
Enfermedades 1970	217	216	732	774	52	200	165	(2.1)	(26.1)	(0.9)		
1974	170	195	743	721	29	172	169	2,730	270	5,356		
% de Cambio	(21.7)	(9.7)	1.5	(6.8)	(44.2)	(14.0)	2.4	2,564	326	5,089		
Enfermedades isquémicas del corazón 1970	5	12	135	58	1	25	27	625	8	896	1	
1974	9	19	159	61	1	29	33	406	19	736		1
Tumores Malignos (Cancer) 1970	18	18	93	64	2	26	8	335	12	576	2	
1974	15	21	84	77	3	14	16	380	20	630	3	
Enfermedades Cerebro-vasculares 1970	5	15	84	58	2	15	28	205	16	428	5	
1974	21	12	110	52	1	21	33	255	34	539	4	
Neumonía 1970	19	17	72	86	5	18	9	278	22	526	3	
1974	10	16	72	62	2	15	9	187	41	414	5	
Enteritis y otras enfermedades diarréicas 1970	22	20	45	50	5	16	9	151	26	344	6	
1974	9	9	42	31	2	10	7	89	23	222	6	
Lesiones al nacer, partos distócicos y otras afecciones anóxicas e hipóxicas de menores de un año 1970	9	2	11	32	2	1	9	126	7	199	9	
1974	10	9	16	38	1	6	-	117	3	200	8	
Otras causas de mortalidad de menores de un año 1970	12	6	28	39	4	17	3	84	10	203	8	
1974	8	11	27	42	-	5	1	101	8	203	7	
Tuberculosis todas las formas 1970	8	17	16	60	6	5	4	70	25	211	7	
1974	9	10	5	62	1	2	1	64	17	171	9	
Otras formas de enfermedad del corazón 1970	2	3	15	20	2	7	6	37	11	103	10	
1974	8	14	10	18	2	5	10	72	11	150	10	
Todas las demás enfermedades 1970	117	106	233	307	23	70	62	819	133	1,870		
1974	71	74	218	278	16	65	59	893	150	1,824		
Accidentes, Suicidios y homicidios 1970	11	18	47	107	4	15	10	252	21	485	4	
1974	11	27	70	138	3	24	27	357	41	698	2	

Fuente: Estadísticas Vitales, D.E.C.

NACIMIENTOS VIVOS, DEFUNCIONES TOTALES, DE MENORES DE UN AÑO Y MATERNAS Y

CRECIMIENTO NATURAL, EN LA REPUBLICA SEGUN AREA: AÑOS 1970-74

Area, Ciudad y Año 1/	Nacimientos Vivos		Defunciones						Crecimiento Natural	
			Total 2/		De menores de 1 año 2/		Maternas 3/			
	Número	Tasa 4/	Número	Tasa 4/	Número	Tasa 5/	Número	Tasa 5/	Número	Tasa 4/
<b>República:</b>										
1970.....	53,287	37.1	10,225	7.1	2,156	40.5	72	1.4	43,062	30.0
1971.....	54,948	37.2	9,857	6.7	2,064	37.6	63	1.1	45,091	30.5
1972.....	54,910	36.0	9,076	6.0	1,848	33.6	61	1.1	45,834	30.0
1973.....	52,091	33.2	9,161	5.8	1,737	33.3	54	1.0	42,930	27.4
1974.(P).....	50,564	31.2	8,588	5.3	1,568	31.0	40	0.8	41,976	25.9
<b>Area Urbana:</b>										
1970.....	23,388	36.0	3,597	5.5	696	29.8	14	0.6	19,791	30.5
1971.....	26,267	37.0	4,414	6.2	898	34.2	15	0.6	21,853	30.8
1972.....	25,891	35.0	4,125	5.6	741	28.6	11	0.4	21,766	29.4
1973.....	24,229	31.6	4,055	5.3	646	26.7	13	0.5	20,174	26.3
1974.....	25,141	31.6	3,950	5.0	621	24.7	11	0.4	21,191	26.6
<b>Area Rural:</b>										
1970.....	29,899	38.1	6,628	8.4	1,460	48.8	58	1.9	23,271	29.7
1971.....	28,681	37.4	5,443	7.1	1,166	40.6	48	1.7	23,238	30.3
1972.....	29,019	37.0	4,951	6.3	1,107	38.1	50	1.7	24,068	30.7
1973.....	27,862	34.6	5,106	6.3	1,091	39.2	41	1.5	22,756	28.3
1974.....	25,423	30.9	4,638	5.6	947	37.2	29	1.1	20,785	25.3

1/ Residencia de la madre para los nacimientos vivos y del fallecido para las defunciones.

2/ Excluye defunciones fetales.

3/ Defunciones por complicaciones del embarazo, del parto y del puerperio y parto sin mención de complicación.

4/ Tasa por 1,000 habitantes, con base en la estimación de la población al 1o. de julio del año respectivo

5/ Tasa por 1,000 nacimientos vivos.

MORTALIDAD GENERAL, INFANTIL Y DE 1 A 4 AÑOS

1970-1974

	MORTALIDAD GENERAL			MORTALIDAD INFANTIL					MORTALIDAD		DE 1 A 4 AÑOS			TASA DE CAMBIO
	1970	1974	% DE CAMBIO	1970	1974	% DE CAMBIO	% RESPECTO A LA MORTALIDAD GENERAL		1970	1974	% DE CAMBIO	TASA DE MORTALIDAD		
							1970	1974				1970	1974	
TOTAL	10,225	9,001	(12.0)	2,156	1,663	(22.9)	21.1	18.5	1,400	952	(32.0)	7.5	4.6	(2.9)
Bocas del Toro	398	297	(25.4)	98	70	(28.6)	24.6	23.6	84	61	(27.4)	13.5	8.7	(4.8)
Coclé	943	663	(29.7)	221	144	(34.8)	23.4	21.7	192	77	(59.9)	11.0	3.9	(7.0)
Colón	1,080	1,017	( 5.8)	220	186	(15.4)	20.4	18.3	133	88	(33.8)	7.7	4.6	(3.1)
Chiriquí	1,802	1,591	(11.7)	404	351	(13.1)	22.4	22.1	311	237	(23.8)	9.1	6.4	(2.7)
Darién	188	105	(44.2)	59	28	(52.5)	31.4	26.7	42	25	(40.5)	11.2	6.5	(4.7)
Herrera	558	427	(23.5)	107	74	(30.8)	19.2	17.3	50	29	(42.0)	5.4	2.9	(2.5)
Los Santos	476	419	(12.0)	69	21	(69.6)	14.5	5.0	20	18	(10.0)	2.4	2.1	(0.3)
Panamá	3,382	3,170	( 6.3)	690	545	(21.0)	20.4	17.2	301	158	(47.5)	4.4	2.0	(2.4)
Veraguas	1,398	1,302	( 6.9)	288	244	(15.3)	20.6	18.7	267	259	( 3.0)	12.7	11.2	(1.5)

Source: Ministry of Health

DEMAND, SUPPLY AND UTILIZATION OF FOOD

According to the latest information recorded on the Food Balance Sheets (1973), the daily per capita availability of calories in Panama was 2,422; proteins, 60.2 grams and fats 77.8 grams. These figures evaluated in terms of average demand for calories and proteins for the Panamanian population, seemed to indicate a national production plus food imports, sufficient to satisfy the calorie and protein needs of the population. Nevertheless, these average figures hide a reality that has been observed in the nutritional status of the country. In Table I are presented the data showing national availability of nutrients for the years 1970-1973. It is worth pointing out the decline that is observed for the years 1970-1973, that could be considered a warning of the approaching crisis if the necessary measures are not taken in time.

This action is conceived within a National Food and Nutrition Policy as of highest value, not only because a favorable solution would signify a considerable increase in divisas, that could be well employed in the purchase of foods whose local production is still below the country's demand, but also, because this money could be invested in the purchase of machinery and indispensable inputs for improving food supply.

Food storage continues being a serious problem since 1974, the storage capacity of the Marketing Section of the Ministry of Agricul-

tural Development only was able to cover 61% of its needs in its own warehouses. The remaining 39% of products had to be stored in rented facilities which were not always adequate.

In the rural areas, the great dispersion of population and the difficult access to small communities, raises a serious supply problem especially during the rainy season.

Table 2 presents the average daily food intake per capita, of calories and nutrients in both rural and urban areas, and relates this information with the adequacy of this diet according to the standards established for Central America.

Another important aspect of the food supply problem that should be pointed out is the effective demand for food, that is the purchasing power of the population. Table 3 presents, as an illustration of this aspect, the purchasing power of workers in Panama City (in the lowest branch of activity classified), in relation to seven foods of common use in the urban panamanian's diet. Data for the years 1971 and 1975 are shown. Purchasing power is expressed in terms of working time (in minutes) required for the purchase of each article on the basis of existing minimum salary for each of these two years. It is observed that the small general increase in salary registered in 1975, does not compensate for the increase in prices for any of the seven articles listed.

We thus see that the economic factor coincide in a notable way with the lack of an adequate diet, and if to this we add the educational factor, it wouldn't be unexpected to find multiple nutritional problems.

### Nutritional Problems

Surveys like the one realized by INCAP in Panama in 1967 as part of a series of studies in Central America, and those carried out by the Ministry of Health in 1975, are based on a statistical method which permits knowing in an average way the national nutritional status.

The 1967 survey in Panama pointed out the following as the principal nutritional problems:

- a) Protein-calorie malnutrition
- b) nutritional anemias, principally due to iron and phosphate deficiencies.
- c) Vitamin A deficiency
- d) Low and deficient intake of Thyamine and Riboflavin
- e) Endemic goiter

With reference to protein-calorie malnutrition, according to anthropometric and biochemical studies, the most affected age group is children, especially the smallest children. Evaluated by the indicator of weight, the prevalence of this illness in grades I, II and III in children under five was as follows:

Malnutrition I	=	48.8%
Malnutrition II	=	10.8%
Malnutrition III	=	1.1%

The 1967 survey results have been reaffirmed in recent surveys, that in partial form have been carried out in diverse sites in Panama. An example of these is the survey conducted in Veraguas Province which revealed a situation a little worse than that observed in 1967.

Table 4 presents the results of both INCAP and recent MOH studies. For all grades of malnutrition, the 1975 study found a higher prevalence than in 1967, but for grades II and III the prevalence was double than in 1967.

In the area of nutritional anemia, it is interesting to note that the high prevalence of deficit and low hemoglobin levels, corresponds to males from 12 to 44 years of age. Following this group in importance are women ages 45-64, and men over 65.

In spite of dietetic studies finding a highly deficient intake of food sources of Vitamin A, clinical studies do not reveal severe signs of this deficiency. Nevertheless, biochemical studies indicate the deficiency of this vitamin constitutes a severe problem in children under 10, especially in rural areas.

With refererce to riboflavin, it is necessary to point out that the deficient intake revealed through dietetic studies correlates quite well with the biochemical studies of urine samples.

The 1967 survey revealed as a serious problem of public health, the high prevalence of endemic goiter (16.5% national average), which could have changed in a significant way as a result of the salt iodization program initiated in 1970. During 1975, a clinical and

biochemical evaluation of this program was carried out, but as of this date, no results of the study are yet available.

Finally, the 1975 survey found no clinical evidence of a deficiency of niacin or ascorbic acid.

#### Activities Directed at Solving the Nutritional Problems

Activities developed by the Nutrition Section, are coordinated with the basic programs of the Ministry of Health, which have as their principal objective achieving a high level of social, physical and mental well being for all the population. For this to happen, it is necessary to elevate the health of the rural population, so long on the margin, without forgetting the urban population which also suffers a high degree of marginality through joint health actions in nutrition, basic sanitation, community organization, and appropriate medical attention.

TABLE N°3

COMPARATIVE STUDY ON THE PURCHASING POWER OF THE LABOR FORCE OF THE REPUBLIC OF  
PANAMA, BASED ON THE MINIMUM SALARY ESTABLISHED IN 1971\*AND 1975 \*\*

	<u>1971</u>			<u>1975</u>	
	Quantity	Average Price November (In Balboas)	Time Required on Job for Purchase of Food (minutes)	Average Price (September) (In Balboas)	Time Required on Job for Purchase of Food (Minutes)
Meats	1 lb.	0.45	54	0.70	76
Dairy Milk	1 pint	0.25	30	0.30	33
Powdered Milk (whole)	4 Oz.	0.24	29	0.34	37
Evaporated Milk	1 can 14-1/2 Oz.	0.23	28	0.31	34
Rice (second class)	1 lb.	0.12	14	0.19	21
Beans (Average, different Types)	1 lb.	0.19	23	0.25	27
Bread	1 lb.	0.19	23	0.32	36

(\*) Current salary for the lowest classified type of work in the Rep. of Panama ( \$0.50 per hour)

(\*\*) Current salary for the lowest classified type of work in the R. of Panama (\$0.55 per hour)

TABLE N° 4

PREVALENCE OF MALNUTRITION IN CHILDREN 0-4 YEARS OLD, BOTH SEXES  
COMPARISON OF FINDINGS IN RECENT STUDIES AS OF 1967

DETAIL	1967 STUDY * NATIONAL AVERAGE	1975 STUDY ** VERAGUAS AVERAGE
Malnutrition I .....	48.8%	51.0%
Malnutrition II .....	10.8%	21.6%
Malnutrition III.....	1.1%	2.7%

(\*) Evaluation on the Nutrition of the Population in Central America and Panama - INCAP Publication V-30, 1969

(\*\*) Preliminary data on study made in five districts of the Province of Veraguas - Department of Nutrition, Ministry of Health, Panama, 1975

TABLE I

DAILY PER CAPITA AVAILABILITY OF CALORIES, PROTEINS, AND  
FATS IN THE REPUBLIC OF PANAMA. (1970 to 1973)

(With Special Reference to Imported Supplies)

YEAR	CALORIES		P R O T E I N S				FATS	
		% IMPORT. (*)	VEGETABLES	ANIMAL	TOTALS	% IMPORT. (*)	% IMPT. (*)	
1970	3,000	(23.6)	38.3	27.5	65.8	(26.3)	81.5 (39.6)	
1971	3,136	(37.6)	39.6	28.6	68.2	(40.0)	93.2 (42.9)	
1972	2,774	(29.3)	34.3	30.9	65.2	(35.9)	77.5 (30.6)	
1973	2,422	(31.4)	30.8	29.4	60.2	(33.4)	77.8 (22.2)	

Food Balance Sheets - Panamanian Statistics, Comptroller General  
of the Republic.

(\*) Shown in percentages

TABLE 2

DAILY PER CAPITA INTAKE AND ADEQUACY OF DIET IN THE  
RURAL AND URBAN AREAS OF PANAMA

( SURVEY - 1967)

NUTRIENTS	RURAL AREA		URBAN AREA (CAPITAL CITY OF PANAMA)	
	% INTAKE	ADEQUACY	INTAKE	ADEQUACY
CALORIES	2,089	104	2,101	98
PROTEINS (g)	60	112	71	120
CALCIUM	301	59	419	80
IRON (mg)	14.3	141	14.9	143
VITAMIN A (mg)	0.55	49	1.1	97
THIAMINE (mg)	0.92	116	0.91	107
RIBOFLAVIN (mg)	0.69	58	0.93	76
NIACIN (mg)	14.3	108	14.8	105
VITAMIN C (mg)	87	194	107	230

\* Adapted from IICAP, Nutritional Evaluation of the Population of Central America and Panamá - V-30, 1969.

1. Potable Water Supply

Situation at the National Level

In 1960, from a total population of 1,075,541 inhabitants, 562,083, or 52.2%, had water connections in their houses.

Comparing this figures to those of 1970, we can see that, not only was it possible to supply water to an increasing population, but also, the remaining deficit was decreased. Consequently, from a total population of 1,428,082, 1,001,902, or 70.1% had the benefits of potable water, and 46.6% had domiciliary connections.

As a matter of interest, we find that between 1970 and 1975 the country has invested a total of \$54.3 M in the water supply program, of which \$26 M represent a national investment and 28.3 M correspond to foreign aid.

Conditions at the Urban Level

In 1960, 446,350 (99.4%) persons residing in the urban area, had potable water services, and in 1970 when the urban population consisted of 679,418 inhabitants, 90% had this vital service through domiciliary connections. It is estimated that by December 1975, the urban population will be 843,000, and approximately 60,000 (70%) will not have potable water. In the district of Panama, with a high percentage of the new development zones underway, 5.9% of the houses did not yet have domiciliary water resources, and in San Miguelito, 34.4% were in the same conditions.

Conditions at the Rural Level

Our conditions during 1960, 1970 and 1975, is as follows:

The total rural population was 629,191, 748,664 and 834,000, respectively, of which 118,411, 322,484, and 450,000 of 18.8%, 43% and 54% during 1960, 1970, and 1975, had potable water.

It is important to note the fact that the percentage of inhabitants in the rural areas with domiciliary water supplies, were 1% in 1960; 6.9% in 1970, and for December 31, 1975, it will be 15%, or about 125,000 inhabitants.

We would like to stress in this study that in the 1970 census, a total of 9,369 populated areas were registered, 9,318 had a total of 2,000 inhabitants or less, and of these, only 416 up until July, 1975 had aqueducts. Actually, there are 139 communities of 501 to 2,000 inhabitants without aqueducts, from a total of 238 registered in the 1970 census. In communities of 201 to 500 inhabitants, 380 of the 571 have no aqueducts, for a total of 519 communities with populations ranging from 201 to 2,000 that could be part of a program for the construction of rural aqueducts for the quinquennial 1976-1980, with a population of 232,370 inhabitants, as shown in the 1970 Census. Finally, we would like to indicate that a great number of communities with less than 200 inhabitants as per the 1970 Census, a total of 8,343 populated sites, with a population of 361,725, or 25% of the total population, will be very close to the 200 inhabitants goal, therefore this program could mean that there are still 750 to be built.

## 2. Sanitary Waste Disposal

### Conditions at the National Level

In 1960, when the total population was 1,075,541 inhabitants, 63.4% (or 698,119) of the persons residing in the country had acceptable sanitary conditions for waste disposal. In 1970, 78.7% of the 1,428,082 inhabitants registered by the census had acceptable disposals and by December, 1975, it is estimated that from a total population of 1,677,000, 1,398,000 inhabitants will have adequate disposal system, or 83.4% of the total population.

### Conditions at the Rural Level

The rural zone has improved in this aspect. In 1960, of 629,191 inhabitants in this sector, only 245,769, (39%) had an approved waste disposal system. In 1970, 68%, (or 518,036) from a total of 784,664; and by December 31, 1975, it is expected that 634,000 from a total of 834,000 persons (76%) will have sanitary systems for the disposal of excretes in the rural areas in the country. Here again, the same districts with predominant rural characteristics have the lowest standards for the disposal of excretes. The average latrines constructed per year will be 8,000 in 1975, and for the 1971-1974 period, close to 6,000 units per year, at an average cost of \$30.00 each. This shows a total of 30,000 latrines constructed at an approximate cost of \$1.0 M; this represents a net contribution by the communities and the only investment made in the rural area program.

It is estimated that by the end of this decade, in order to provide 85% of the total rural population with adequate waste disposal systems, it will be necessary to build 50,000 latrines, at an average per year of 10,000, and at an estimated cost of \$50.00, which represents a total investment for the period of \$2.5M.

3. Collection and Final Disposal of Garbage

This very important aspect of basic sanitation, is presently, the least considered among the principal districts of the country, consequently it merits preferential attention during the next quinquennial.

According to the information compiled from the main districts of the Republic, it is estimated that definite steps must be taken to improve this situation in the 51 populated areas, classified as urban, and in 50% of the 238 formerly classified in 1970 to be in 501 to 2,000 inhabitants category. This would set a goal close to the 200 communities in the countries that must be included in a plan of action.

OBJECTIVES AND STRATEGY

Since January, 1969, the Government of Panama established the Ministry of Health (MOH) as a separate entity. The new Constitution of 1972 established the most important norms in health matters and the national food and nutrition policy as being the assurance of an optimal state of health and nutrition for all the population. The norm of this GOP health policy is summarized in the slogan "Equal Health for All".

In 1972, the Ministers of Health of the Americas, meeting in Santiago, Chile recognized the imperative necessity of providing minimal health services to the population that lives in marginal areas of the great cities and in the rural area. In the Ten Year Health Plan for the period 1970-1980 approved in that meeting priority was given to the extension of integrated health actions to the greatest number possible of inhabitants that is, to increase the coverage, especially in the rural communities. Doing this, they had in mind not only the existing situation in this zone, but also the fact that the rural area constitutes the potential base of development. As a consequence they proposed to extend during the decade, the coverage of integrated health services to dispersed communities, giving priority to the control of communicable diseases, maternal and child health, nutrition and environmental health.

This enterprise constitutes a long range process that requires the introduction of fundamental changes in the structure and organization of services, and in the utilization of resources. The limitation of these resources obliges us to look for new ways of increasing the production of services, and at the same time incorporating other elements that permit

multiplying the actions directly on the sites of program execution. The methodology for reaching the unprotected areas should be adapted to the prevailing conditions in the countries, and to the available resources, especially at the community level.

The above affirmations conceived in the Plan de las Américas, serve as the norm and guide for Panama's National Health Plan and Objectives in the Health Sector. The GOP objectives in health in respect to the development of the rural communities are the following:

- 1) Increase coverage
- 2) Treat the morbidity in the rural zones
- 3) Lower infant mortality and at least maintain the rate for those 15 and over.
- 4) Improve environmental sanitation
- 5) Improve the nutritional status of the inhabitants.
- 6) Regulate fertility in agreement with the national population policy.

### Strategy

1. Define a health policy in relation to the extension of services to all the population, above all the rural population. This policy has been adopted and is delineated within the broader policy of global development of the rural environment, conceived by the GOP.
2. Obtain the development of a functional regionalization of health services as a mechanism of decentralization that guarantees political and administrative support to the organs charged with delivering services to the rural area, and that facilitates extrasectorial coordination with the purpose of making rational use of available resources.

3. Create consciousness among all the population of the country, especially in groups related to health science, of the advantages of a program of extension of services to the rural area, because of its repercussions in the integral development of the communities by elevating their health levels.
4. In the promotion of the rural health program the emphasis given is on feasible plans, based on the considerations of low cost of the program, short time of implementation, preventible or reducible situations, or those which are important due to their frequency. Factors considered of major importance include: auxiliary personnel that are able to be used in the program, the community can be incorporated into the work, and the program has the support of other intra or extrasectoral programs.

The GOP, through the MOH, has decided to utilize as one of its key strategies in the rural sector, the preparation of health assistants. They have the following characteristics:

- 1) Should come from the rural area and reside permanently in the rural area where they are to work.
- 2) Should have finished primary school, although under certain conditions and in agreement with the personal characteristics of the individual, this requirement could be waived and only the ability to read and write required.
- 3) The sex of the assistant will depend on the utilization planned for them and on the cultural patterns of the community.

It is preferred that assistants be over 18, the minimum age. Especially important is their ability to be accepted by the community, to enjoy

prestige within it if possible, have the ability to communicate effectively with the community and the possibility for acting as a change agent. Based on these parameters, the assistants are selected on the local level.

The health assistants program is a low cost one, with their salaries of \$50.00 per month being half those of beginning auxiliary nurses, and is feasible for the state to pay. Secondly, this program can be implemented and carried out in the short run. Thirdly, many more communities are guaranteed of having basic attention in preventive health care.

To carry out the strategy of the health assistants program is necessary to prepare the physical resources and adequate equipment for the distinct installations where they are going to work. This involves the construction of health posts, preferably with characteristics similar to the architecture utilized within the community and using in the construction the same materials that the community utilizes in its houses, so as to not raise cultural barriers due to contrasts between the health post and the other housing.

For the supervision of the health posts an adequate infrastructure is required, that logically should be located within the regional areas, and that takes account of the poles of attraction or of socio-economic development within the rural areas. The second step in supervision of the health posts would be the health sub-centers, that would serve the bigger communities and that would supervise a group of health posts. On top of the sub-centers it is necessary to have adequate health centers and rural hospitals, to satisfy all levels of need in the rural zone.

To implement this latter strategy, it has been decided to remodel and rehabilitate existing installations, and at the same time construct new ones

in places where required. In this way the system contributes to the inhabitants of the rural areas not feeling the necessity of going to the urban areas to receive adequate attention.

The construction of adequate facilities and services in the rural areas, will facilitate health personnel with better technical capacity accepting jobs in the rural areas. To this is added the offering of an incentive to all those persons working in areas of dispersed population or difficult access.

Another key aspect of the rural health strategy involves training. In the organization of teaching and training, local personnel are used as much as possible and, where possible, the personnel which will be in charge of supervising the health assistants. Each one of the courses should be developed specifically in the region where the trainees will be working. The course content will have the primary focus on maternal and child health, disease prevention, (esp. vaccination, first aid,) environmental sanitation, development of nutritional programs, and above all, community organization.

The strategies which have been outlined above, all form a unified global strategy to attack the problems of rural health. In this way, the GOP hopes to achieve acceptable health levels in the rural areas, and that the major indicators reach the same level as those of the urban areas, which already are comparable to some of the developed countries.

### PROGRAMS AND THEIR IMPLEMENTATION

The Panamanian population is the subject and at the same time the object of the activities developed in the health sector to provide for the welfare of the entire community. For this reason, the organization and operation planned for the implementation of these actions, must come from the communities and the Panamanian populace. In this document we refer specifically to the programs related to the rural population and the margined urban areas, and do not refer to other programs developed jointly in the health sector.

The structure of the population of the country shows a great dispersion. According to the last census, in 1970 there were 5,897 populated localities with less than 50 inhabitants; 1,530 sites with 50 to 90 inhabitants, and 1,597 with 100 to 499. Therefore, approximately 538,334 inhabitants live in widely dispersed communities. This situation creates a problem for the enforcement of the policy proposed by the MOH, which calls for "Equal health for all the Panamanian", and represents a challenge for the adequate implementation of the programs. For this reason, the plan proposed must be prepared in such a way that the objective desired will be accomplished, considering that its implementation must not only be developed at a theoretical level, but also at a feasible level, based on facts.

The development of the programs at the local level must be integral. This means that they must include the goals for the development

of the health programs, as well as the global goals for the development programs for the entire country.

With respect to health, the types of programs planned for highly dispersed communities should be for the improvement of the health standards of the population, as well as for improving the environmental and nutritional conditions of the inhabitants. The active participation of the community in the development of health programs is basic. In order for a community to participate dynamically in the process of producing health it should have some level of organization. For the development of its policies in community health, the MOH, enthusiastically has prepared a series of programs.

The first resource for these types of programs is the community itself. For this reason, the primary resource within the rural community would be the health assistant, who should have among his duties, the responsibility to develop the different communities he is in charge of. One of his duties is to try to relocate the inhabitants in the different communities in sites where it would be feasible to adequately provide the health services, while at the same time, facilitating the agricultural, commercial and economic development, which will contribute to improve the welfare of the people involved.

By providing education in the nutritional aspect, the health assistant becomes a leader or moving force in some cases, for creating and operating community gardens that facilitate the production of food, in qualities and quantities that will improve the nutrition standard of the communities.

His activities can be performed, either from a health post built by the community and in accordance with the structure of same. He represents the communication means between the community and the rest of the health system, at the horizontal and vertical levels.

The next level to be developed corresponds to the health subcenters where the communities engaged in the same type of activities but with functions more specifically related to medical care and attention, where more complicated medical problems are treated, first aid and injections are provided, as well as other minor activities, particularly those referring to the Maternal/Child care. While having a higher technical training than that of the health aides, the auxiliary must supervise and support the chores done by these aides in the subcenters.

A more complicated type of health care, is that offered by the health centers. Medical consultation seems to be the final action, and the auxiliary and the environmental health technicians, form a net at the health post, which could refer the most urgent problems to the center. The health center could be of an organized variable complexity. In some cases, and depending upon the amount of the population serviced, it would not only provide general medical consultations, but also, would have some specialists such in basic needs such as pediatrics and obstetrical. When these centers provide services to some determined sectors in the urban areas or in the rural areas where there is a large nucleus of population, other types of specialities, actions and programs for diagnostic support to the medical services such as laboratories could be included.

In some cases, the health center, could be so complex that it represents the health facility with the highest authority in an area or a sector. In other instances, there could be various health centers that depend on a rural hospital.

The rural hospital is characterized, besides offering preventive measures already mentioned, it also provides some curative measures and has beds for hospitalizing the patient if needed. It already offer intermediate services to larger rural area, depending upon the extension of the area to be covered, the population, accessibility to the different health centers and the demand for the services according to the population. These rural hospital must at least offer basic general services such as obstetrics and gynecology, child care programs and some services for the adult health program.

The following type is the regional hospital. It should be in the majority of cases a general hospital, with basic medical specialities considering the accessibility to same they could gather some of the various specialities requiring complicated equipment and personnel.

The last type of general hospital providing training and research services more complicated are only available in the well developed urban areas. Other centers in the areas are in charge of providing treatment to some specific diseases requiring more complicated elements for treatment.

Each of the medical services of the organization responds to the actions, either curative or preventive, and each of the professionals laboring there must simultaneously develop both types of activities,

taking into consideration the main duties of the health aides, not only for the development of the medical attention, but also for the prevention of disease and the care and attention of health in the different communities as well.

The region director is responsible for developing all the programs developed by the health Sector, according to the population and ecology of each of the communities, programs at a local level.

For the adequate development of the programs and in accordance with the Law establishing the Health Sector, same is composed of three levels: A decision level, formed by the Minister, the Directors of the autonomous institutions, responsible for establishing the health policies of the institutions under their direction, and supervising the implementation of the programs developed at a national level.

At a central level, basically, dealing with technical assistance, planning, programming, supervising and evaluating the different programs. The departments that prepare the norms and general guidelines for the health plans to be developed in the different regions are at a national level. The consultation level is divided into an administration section and several technical divisions. The technical divisions are sub-divided into those providing services directly to the people, and those involved in environmental health.

For the development of programs at the local level, there is a Regional Director for Health in each, responsible for the execution, supervision, and evaluation of each of the programs at this level. For example, the person in charge of implementing all the activities dealing with Maternal/Child health.

At the same time, this director and his assistants must be very careful in the activities for the development of programs to educate and organize the community.

Special mention must be made of the environmental health programs. For the past three years, the environmental health program has developed

an aggressive policy for promoting facilities for potable water, in the rural communities. In this way, the activities primarily developed were the construction of dugged and drilled wells. These are for small communities not yet organized or relocated in areas of greater population density.

In an initial stage, through activities of the health aides auxiliaries, and educators, or the promoters for rural aqueducts, a campaign was begun to organize the community and create enough motivation for same to want a rural aqueduct.

The Environmental Health program has developed the technical capacity to build 100 rural aqueducts per year, provided the necessary resources are available. With regard to the selection of the communities, first it is required that the community be sufficiently motivated to contribute with the labor, aqueduct and with the purchase of piping and material for the tank for the construction of the aqueduct; the Ministry of Health contributes with the technical assistance and the well drilling equipment. It is also required that the community have adequate water sources, that will provide enough water during the dry, as well as the rainy seasons.

Accessibility to the site must also be considered, since in some areas can only be reached during the dry season.

The inflation affecting the world and the shortage of certain types of motors forces us actually to select the communities according to priorities, with electricity readily available to use with the

electric motors. In other communities, due to the problems created by the shortage of petrol and its derivatives, we must continue to use gasoline or diesel motors, thus creating a series of problems which have delayed the construction of these types of aqueducts.

Once the aqueduct site has been selected and construction is completed, the MOH formally delivers the aqueduct to the Health committee in the community. In this way, each community is responsible for the operation, maintenance, repair and future projects for expansion in each of the sites. This system has been in effect for 3-1/2 years, and the results up to this moment have been satisfactory, since the cost for maintenance is the responsibility of the community and will not become a burden to the costs nor the budget of the Health.

In some cases, the Health committee system and the administration of the aqueduct allows for the collection of funds to be utilized, not only for the production of potable water, but can also be used in other development tasks within the same communities. In some cases for activities related to health. Contrary to the health committee systems utilized in other countries, in Panama, these committees have the right to decide upon use of the funds, in the way most convenient to the community.

When the size of the community does not merit the construction of a rural aqueduct, water is provided by digging or drilling wells. The Health Committee in these cases, cooperates with room and board for the laborers, and also contribute with the non-skilled labor. By

using this system, the team of the Ministry of Health was able to construct 600 water wells in a year.

Together with the providing potable water facilities, and in coordination with the dental health program, under international technical assistance, the GOP through the Ministry of Health is studying the feasibility of constructing other rural aqueducts with this low cost system, for the chlorination and fluorination of potable water, to improve conditions by eliminating the possibility of contamination by germs, and facilitate the dental health.

The potability and pureness of the water is guaranteed through examinations of samples of the water periodically made at the Central Health Laboratory. These samples are gathered by the members of the health committee, health aides, auxiliaries, community nurses, where available, environmental health inspectors. This situation guarantees the purity of the water and it has had a really important effect in the control of endemic and parasitic diseases, abundant in the rural areas where this program is presently operating.

Another activity carried out successfully by the Environmental Health program is control of human excretes. Since a sewers program would be very expensive for the rural communities, the team from the Environmental Health decided on the construction of latrines in the rural areas. Actually, the team is in position to build 6,000 latrines a year. This program has been blocked, particularly by the limitations for lack of funds, since it requires that the home owner should contribute the materials necessary for building the latrines. Neverthe-

less, the Ministry of Health considers that if feasible, materials would be provided and the skilled labor could be furnished by the communities, in this way it will be able to build 10,000 latrines per year, with the corresponding benefit for those involved. Studies carried out have proven that it is much more helpful for the GOP absorb the costs of building the materials for the construction of the latrines, than to continue to paying for medicines to exterminate the parasites, that each community requires.

A fact that is presently being seriously considered, is the waste disposal program. The most current method is the incineration of waste in the rural areas, on a not specifically selected site. The Ministry of Health in this aspect is trying to develop a pilot program - construction of rural waste disposal trash cans, that will teach the campesino in the rural areas the benefits of working together in the construction of this type of equipment.

#### Program of Vector Control

##### Malaria

The National Service for the Eradication of Malaria was created by Decree 769 of August 24, 1956 with the purpose of eradicating Malaria from the Republic of Panama. The surface of the malarial area of the country is 71,272 Km<sup>2</sup> with a population of 1,573,500 inhabitants in 1973, which means the 92.5% and the 97.1% of the total country, respectively. And the density of the population for this area is of 22.1 inhabitants per Km<sup>2</sup>.

According to the international standards adopted for the eradication of Malaria, the campaign is divided into the following phases:

- A. Preparatory
- B. Attack
- C. Consolidation
- D. Maintenance

In the quinquenium 70 - 74 the preparatory and attack phases have been covered, and in January of 1974 we entered the phase of consolidation of 16,191 Km<sup>2</sup> of the national territory with 3,861 locations and a population of 410,327 inhabitants.

#### Objectives

1. Interruption in the malarial transmission by the application of basic and complementary measures of attack, which would be intensified according to the evolution of the program.
2. Establishment of an adequate system for the search of cases in order to evaluate the results of the measures of attack.
3. Confirmation of the interruption of the malarial transmission.
4. Treatment of cases.
5. Epidemiologic investigation.
6. Entomological studies.
7. Parasitological studies.
8. Community participation in the program.
9. Coordination of the health general services.
10. Personnel administration.

The development of the program of the eradication of malaria during this quinquennium has allowed this problem to be focused in two provinces of the country: Darien and Bocas del Toro.

At present we are making important efforts with the aim of eliminating the existing sources in the native area of Bocas del Toro in order to allow the problem to focalize in the Darien area. It is important to point out, that in the area of malarial persistence the spraying activities surpass the 97% of the programmed goal and that during said period, the yield per house by spraying increased to 6.3. Our program of malarial eradication continues progressing satisfactorily in spite of the deterioration of the Colombian situation in the Chocó zone and the situation of malaria in other Central American countries in which the application of the traditional means of eradication do not seem to have had the expected results. The Eastern part of the country, especially the province of Darien, shows the majority of cases.

The San Blas Islands which had an epidemic episode during the period of 1973, have ceased to be a problem.

On the other hand, the province of Darien registers the majority of cases, especially since April of this year.

Darien has 70% of all the cases in the country.

In the period, 387,634 blood samples were taken with 687 cases, that shows a positiveness of 0.2%. In the former period, we were informed of 349,761 examined 2,884 resulted positive, which equals a positiveness of 0.6. The number of plates was greater, and cases much

lesser than during the former period mentioned. For Darien, which presents the greater number of cases, we are carrying out a special plan providing it with better resources without neglecting the rest of the program; in particular in Bocas del Toro and in the Bayano. The attached chart demonstrates the evolution of the malarial situation in the country within the years 1970 - 1974. In regards to this program, the National Government hopes to intensify it in its aim to totally eradicate the Malaria presently totalized in the flora of Bocas del Toro, Darien and in the province of Panama, in the vicinities of the lake.

#### Evaluation

The program has its standards of evaluation and will continue evaluating in the same manner, since these standards are those used internationally in the rest of the program and the evaluations up to now are satisfactory.

#### Campaign of Erradication of the Aedes Aegypti

Since the discovery of the Aedes Aegypti in the City of Panama on October 1972, the program developed an intense campaign of attack towards the complete elimination of this problem. Nevertheless, to this date and due to adverse operational factors, due to the ecology favorable to the proliferation of the mosquito in the city, due to a lack of a more decided cooperation, especially that of population that uses empty lots as deposits, as well as to a large quantity of lots with scrap metal, the total elimination of the problem has not been possible. Notwithstanding the aforementioned, a substantial reduction has been

achieved in the infection index of 0.28% in June of 1974 as compared to 0.03% in June of 1975.

During the phase of attack the campaign has applied the following combat measures, simultaneously:

Treatment of all deposits in the surroundings with an insecticide of residual action, the MALATHION. Treatment of all deposits that contain water for domestic use with granulated Abate, non-toxic to human consumption, and application of insecticide by the ULB method (ultra-reduced volume by means of the Lico machine) and the systematic elimination of used tires by means of cremation, organized cleaning campaigns in the different sectors of the city and the systematic elimination of minor deposits by means of a pickaxe. The infection of the City of Panama has absorbed almost all the resources at the disposal of the campaign. Nevertheless, conscientious of the importance of a sound knowledge of the situation in the entire country, an effort has been made to divert the minimum necessary personnel and others have been recruited from SNEM to effect the inspection at least in the most vulnerable province. To date, the San Blas Islands have been inspected with negative results. *Aedes Egypti* have only been found in two Colombian vessels sailing from Turbo, for which reason an inspection and treatment post for vessels have been established at Puerto Obaldia. Likewise, inspections of the Transisthmian Highway and the road to Chepo have been initiated. In the Province of Chiriqui, the following have been inspected with negative results: Puerto Pedregal,

REPUBLICA DE PANAMA  
 MINISTERIO DE SALUD  
 SERVICIO NACIONAL DE ERRADICACION DE LA MALARIA

Cuadro Nº. 2

EVOLUCION DE LA SITUACION MALARICA EN EL PAIS  
 AÑOS 1970 - 1974

C O N C E P T O	A Ñ O S				
	1 9 7 0	1 9 7 1	1 9 7 2	1 9 7 3	1 9 7 4
Población Area Malárica	1.404.977	1.419.789	1.466.058	1.510.436	1.557.854
Muestras de Sangre Examinadas	237.477	3 1.743	269.097	344.315	368.820
Localidades Positivas %	-	3.9	2.3	3.2	2.1
Indice Anual de Exploración Sanguínea	16.9	21.3	18.4	22.8	23.7
Casos de Malaria	4.584	1.041	819	1.595	1.184
Indice Parasitario %	1.9	0.3	0.3	0.5	0.3
Incidencia Parasitaria Anual %.	3.2	0.7	0.56	1.1	0.7
Positividad a <u>P. falciparum</u> %	74.2	54.9	66.3	40.8	40.6
% Reducción de Casos de Malaria con relación al año 1970	-	77.3	82.1	65.2	74.1
% Reducción de Casos de Malaria en relación al año anterior	22.8	77.3	21.3	+ 48.6	25.8

Puerto Armuelles, Progreso, Paso Canoa, Aserio de Gariche, and Concepcion. In the City of David 40% of the city has been inspected. We have found 16 positive blocks with an almost total dispersion in the inspected area, which makes us presume that the entire city is infected. Consequently, the necessary measures have been taken to initiate a phase of attack of the city, necessitating the use of SNEM personnel stationed in Chiriqui and Veraguas, as an emergency measure. We wish to state that this is a transitory situation and that a permanent solution merits a different approach which will require additional assignments of resources. The objective in this program is the total eradication of the *Aedes Egypti* and the continued management of total vigilance. The methods of evaluation to be used will be the usual ones.

#### Nutrition and Food Control Program

As well as in the case of other developing countries in Latin America, the Panamanian population is fundamentally undernourished. The cause of malnutrition is one, insufficient and inadequate food. The nutrition problem is complicated, it includes production, marketing, distribution, and consumption of food. For this reason, finding a solution is problematic and corresponds to many agencies of the Government. All the agencies do cooperate in this aspect. The Ministry of Education, through the development of production schools programs actually under an AID loan; the Ministry of Agriculture, basically concerned with the formation of "asentamiento" for the production of large amounts of food. The function of the Ministry of Health deals with the

production, especially of certain foods such as to vegetables which are not produced by other means, for educating our communities to consume these types of food. Another of the great programs is the production of animal proteins.

What we have mentioned before is the basis of the program of the Panamanian State, to develop rural communities and create sources of employment, and at the same time, facilitate the social services that will guarantee that the individual will live in the communities, remain in same and at the same time be able to provide welfare for his family.

This is the reason for the rural school programs that will guarantee education of the children, under a program that will provide social services, and further support the construction of appropriate housing, so the community will have access to health services, in enough quantity and quality according to their needs. Our rural communities are integrating within their organization, methods for the production of food that will permit the abolishment of the malnutrition diagnosis. Considering that nutrition is the basic function in any community, the health committees, duly coordinated or assisted by the health aide, a community nurse, or by any other member of the health team, organize programs for the production of food. These programs are developed in community plots, either donated, on a loan basis, or privately owned, where the necessary food is cultivated to complement the deficiencies in the diets, by utilizing modern methods and technical

assistance. There are presently 136 community gardens. It is expected that the general objectives of the nutrition program will be accomplished with this program, and by cultivating and further developing a community garden of approximately 5 to 7 hectares, and the production of animal proteins, by raising goats, poultry and in some cases, fish.

At present, many well organized communities are developing these projects of community gardens and animal breeding. It has been considered that it is not enough to provide only what is required for cultivating the garden. For instance, tractors, fertilizers, seeds, irrigation equipment, and aspiration pumps for pest control, but most important is to furnish the proper technical assistance to ascertain that there is enough understanding of the proper utilization of these new methods of cultivation, in order to facilitate the changes in traditional habits predominant in these sites, and insure the success of the program.

The program for food production is closely related to the preventive and environmental health programs, and also to programs for the education and organization of the community. The final objective is to provide the rural communities with the required well-being, considering that this well-being as applied to health, will be in the future, the same for all Panamanians, no matter where they live.

The present community gardens program, was able to cultivate, in 1972, more than 240 hectares with the participation of more than 2,312 families organized in work groups of 3-5 persons per day, taking turns to work in each garden every week.

The estimated increase in the food production has important social effects. The society is liberated from the ever-present ghost! Hunger. The surplus produced by the communities is then turned into basic community projects, for the promotion of health programs.

<u>ALTERNATIVA</u>	<u>A</u>	<u>TOTAL</u>	<u>LOCAL</u>	<u>AID</u>
		31,261,029	24,961,029	6,300,000
1-	<u>ADECUACION DE LOS SISTEMAS</u>	<u>2,500,000</u>	<u>2,000,000</u>	<u>500,000</u>
	- Salarios y otros Servicios Personales	1,500,000	1,500,000	-
	- Materiales, equipo, suministros	1,000,000	500,000	500,000
2-	<u>ADECUACION, MEJORA Y DESARROLLO DE LA INFRAESTRUCTURA FISICA</u>	<u>17,700,000</u>	<u>15,700,000</u>	<u>2,000,000</u>
	- Salarios y otros Servicios Personales (incluye solo equipo programador)	375,000	375,000	-
	- Construcciones	13,000,000	11,000,000	2,000,000
	- Equipo e instrumental	4,325,000	4,325,000	-
3-	<u>REORGANIZACION, FORMACION Y ADIESTRAMIENTO DE RECURSOS HUMANOS</u>	<u>1,510,000</u>	<u>1,210,000</u>	<u>300,000</u>
	- Salarios y otros Servicios Personales	360,000	360,000	-
	- Materiales, equipo, suministros, becas	1,150,000	850,000	300,000
4-	<u>MEJORAMIENTO DEL MEDIO</u>	<u>6,606,379</u>	<u>4,106,379</u>	<u>2,500,000</u>
	- Salarios y otros Servicios Personales	2,889,279	2,889,279	-
	- Materiales, equipo, maquinaria, suministros	3,717,100	1,217,100	2,500,000
5-	<u>NUTRICION</u>	<u>2,944,650</u>	<u>1,944,650</u>	<u>1,000,000</u>
	- Salarios y otros Servicios Personales	1,252,650	1,252,650	-
	- Materiales, equipo, maquinaria, suministros	1,692,000	692,000	1,000,000

ALTERNATIVE	<u>B</u>	<u>TOTAL</u>	<u>LOCAL</u>	<u>AID</u>
		35,761,029	24,961,029	12,100,000
1-	<u>ADECUACION DE LOS SISTEMAS</u>	<u>2,500,000</u>	<u>2,000,000</u>	<u>500,000</u>
	- Salarios y otros Servicios Personales	1,500,000	1,500,000	-
	- Materiales, equipo, suministros	1,000,000	500,000	500,000
2-	<u>ADECUACION, MEJORA Y DESARROLLO DE LA INFRAESTRUCTURA FISICA</u>	<u>19,600,000</u>	<u>15,700,000</u>	<u>5,200,000</u>
	- Salarios y otros Servicios Personales (Incluye sólo equipo programador)	375,000	375,000	-
	- Construcciones	14,900,000	11,000,000	5,200,000
	- Equipo e Instrumental	4,325,000	4,325,000	-
3-	<u>REORGANIZACION, FORMACION Y ADIESTRAMIENTO DE RECURSOS HUMANOS</u>	<u>1,510,000</u>	<u>1,210,000</u>	<u>300,000</u>
	- Salarios y otros Servicios Personales	360,000	360,000	-
	- Materiales, equipo, suministros, becas	1,150,000	850,000	300,000
4-	<u>MEJORAMIENTO DEL MEDIO</u>	<u>7,606,379</u>	<u>4,106,379</u>	<u>3,500,000</u>
	- Salarios y otros Servicios Personales	2,889,279	2,889,279	-
	- Materiales, equipo, maquinaria, suministros	4,717,100	1,217,100	3,500,000
5-	<u>NUTRICION</u>	<u>4,544,650</u>	<u>1,944,650</u>	<u>2,600,000</u>
	- Salarios y otros Servicios Personales	1,252,650	1,252,650	-
	- Materiales, equipo, maquinarias, suministros	3,292,000	692,000	2,600,000

<u>ALTERNATIVE C</u>	<u>TOTAL</u>	<u>LOCAL</u>	<u>AID</u>
	46,961,029	24,961,029	22,000,000
1- <u>ADECUACION DE LOS SISTEMAS</u>	<u>3,500,000</u>	<u>2,000,000</u>	<u>1,500,000</u>
-Salarios y otros Servicios Personales	1,500,000	1,500,000	-
-Materiales, equipo, suministros	2,000,000	500,000	1,500,000
2- <u>ADECUACION, MEJORA Y DESARROLLO DE LA INFRAESTRUCTURA FISICA</u>	<u>21,700,000</u>	<u>15,700,000</u>	<u>6,000,000</u>
-Salarios y otros Servicios Personales (incluye sólo equipo programador)	375,000	375,000	-
-Construcciones	17,000,000	11,000,000	6,000,000
-Equipo e instrumental	4,325,000	4,325,000	-
3- <u>REORGANIZACION, FORMACION Y ADIESTRAMIENTO DE RECURSOS HUMANOS</u>	<u>1,710,000</u>	<u>1,210,000</u>	<u>500,000</u>
-Salarios y otros Servicios Personales	560,000	360,000	200,000
-Materiales, equipo, suministros, becas	1,150,000	850,000	300,000
4- <u>MEJORAMIENTO DEL MEDIO</u>	<u>13,506,379</u>	<u>4,106,379</u>	<u>9,400,000</u>
-Salarios y otros Servicios Personales	2,889,279	2,889,279	-
-Materiales, equipo, maquinarias, suministros	10,617,100	1,217,100	9,400,000
5- <u>NUTRICION</u>	<u>6,544,650</u>	<u>1,944,650</u>	<u>4,600,000</u>
-Salarios y otros Servicios Personales	1,252,650	1,252,650	-
-Materiales, equipo, maquinaria, suministros	5,292,000	692,000	4,600,000

### THE INSTITUTIONAL STRUCTURE OF THE HEALTH SECTOR

For the purposes of the present diagnosis, the Health Sector has been considered as synonymous with Systems of Health Services. In it, have been grouped those institutions whose production of goods and services have been considered pertinent and specific to health. In Panama, the Health Sector presents the following characteristics:

1. There exist a diversity of health activities that are being developed by the health institutions, with or without legal support or as a function. These institutions are twelve; i.e., Ministry of Health, Social Security Agency, Institute of National Aqueducts and Sewage; Military Sanitation, Ministry of Education, Children's Hospital, Jose D. de Obaldia, National Red Cross, University of Panama, Ministry of Labor and Social Welfare, National Institute of Sports and Panamanian Institute of Special Rehabilitation (see Annex). Of these institutions, the Ministry of Health and the Social Security Agency perform the majority of health activities, and they are the only institutions in the Sector that build establishments and produce serums and medicines.

The Ministry of Health, as specified by the legal entity which created it, is the entity of the Executive Branch in charge of determining and conducting the health policies of the country, and of performing acts to encourage, protect, repair and rehabilitate health.

The Social Security Agency, constitutes the most important Institution of the Panamanian System of Social Security, it was commissioned by the Chief of Government, with the administration of the Integration of Health, from the beginning of this process, in 1973. It covers risks of illness, maternity, funerals, labor accidents and professional illnesses of the population protected by its administration. The IDAAN is the Institution in charge of administering and controlling all activities related to the providing of drinking water and the treatment of sewage water, be they public or private.

2. According to the responsibility of the organization and administration of the Health Services in the Country, there exists a Public Sector and a Private Sector.
3. The Public Sector in Health is constituted by institutions, each of which has its own characteristics, in some cases differing in its organic structure, functions, sources of financing, administrative programs and systems.
4. The establishment of some of the institutions of the Sector has been brought about by different factors. In some cases, they have been established to meet the functions of the groups of population to whom those services are destined; in other cases they have been established for the function of the risk; or damage, or service, under the responsibility of attention of part of the Institution.

5. This plural number of Institutions within the Health Sector, causes problems and the need to coordinate both inter-institutionally and inter-sectorially. In some cases the institution functions with a certain degree of autonomy, causing problems of authority and competence with the entity responsible for conducting the health policies of the country; that is, the Ministry of Health; such is the case with the Patronage that administers health establishments.
6. The Private Sector is made up of organized enterprises who have at their disposal resources, of physical as well as human capacity, and by health professionals, who exercise private or direct practice.

This sector is most significant in the principal urban zone of the country (metropolitan area).

In summary, according to the actual situation it is not possible to establish a Sole System of Health by which the State administers the totality of the resources destined to health; but it is possible to attain, at a medium term, an integration of the Health Resources of the Public Sector through the mechanics of state normalization and regulation, and to establish a larger and more ample participation of the Private Sector in the development and execution of a health policy which allows every person in the national territory to enjoy equal benefits in quality and quantity, and at a reasonable social cost.

The institutional structure of the Health Sector has made possible

the utilization of resources from different sources and magnitudes, the duplicity of service covertures by one or more institutions, and a diminishing of the yield of the assigned physical, human and financial resources.

The manner in which the two principal institutions of medical attention have been operating; i.e., the Ministry of Health and the Social Security Agency, limited to a certain extent the more rapid implementation of the policies and objectives of the Health Sector pointed out in the National Development Plan. These objectives are detailed below:

1. Accelerate the process of incorporation of the marginal population, especially those of the rural area, to the System of Health Services.
2. Guarantee the quality and efficiency of the Health Services, and
3. Diminish the risks arising from the surroundings, especially those resulting from life in common.

The aforementioned situation has required the Health Sector to search for the means to adapt its institutional structure in such a way as to allow it to profit to the maximum from the resources destined to the Sector, to establish a sole system of health, by means of an integration of the State resources and to reorient its programs in order to ensure efficient and oportune health services, to the majority of the population.

### INTEGRATION IN HEALTH

Based on Article 107 of the National Constitution, according to which: The Government Health Sectors, including its autonomous and semi-autonomous institutions, will be organically and functionally integrated. The law will regulate this matter..." the Chief of Government reached the decision, beginning on February 1973, of assigning the responsibility of the health integration to the Social Security Agency. The process was initiated in the provinces of Veraguas, Bocas del Toro, and the Region of Azuero (provinces of Herrera and Los Santos), having as its aim the incorporation of the entire country to this system by 1975.

The integration of the Health Sector has been defined as a PROCESS TENDING TO UNIFY ALL AVAILABLE HUMAN RESOURCES, INSTITUTIONAL AND MATERIAL, FOR THE APPLICATION OF THE SCIENTIFIC AND TECHNOLOGICAL INSTRUMENTS FOR THE BENEFIT OF THE ENTIRE POPULATION, IN HEALTH AND DISEASE, WITH EQUAL OPPORTUNITIES IN QUALITY AND QUANTITY.

Its basic objectives tend to:

1. Produce the maximum fulfillment of the Health needs for the entire population, in quality as well as in quantity;
2. Obtain the greatest utilization of the assigned resources by the Sector, producing greater benefits per resource unit than those obtained without integration;
3. Increase the coverage of the demands of the population, with

priority to marginal and rural areas, without deteriorating the urban Sector;

4. Emphasize the promotion and protection of health, with emphasis on an integral medical attention;
5. Obtain the most efficient participation of the community in all its levels.

In order to achieve the aforementioned, various different methods are being utilized.

1. Development of techno-administrative systems to allow the integral medical attention and to adapt the offer to the services demands.

Includes:

- 1.1. Statistical system and of data comprehension.
- 1.2. Mechanisms of continuous evaluation and programming of actions.
- 1.3. Normalization of activities, programs and systems.
- 1.4. Adequateness of the installed capacity (physical, human and financial).
- 1.5. Administrative decentralization.
2. Promotion of technological changes that assure the carrying out of an integral medicine program.
  - 2.1. Systems of health benefits.
  - 2.2. Accessibility to the means for diagnosis and therapeutics for the entire population.

- 2.3. Systems of supervision
  - 2.4. Training of personnel (health aides)
  - 2.5. Systems for the better utilization of resources (sectorization).
3. Programming the activities at an operational level.
    - 3.1. Inventory and analysis of resources and confrontation of these with services demands.
    - 3.2. Analysis and implementation of priorities and assignation of resources according to these priorities.
    - 3.3. Structure of programs and programatic aims.
    - 3.4. Continuous evolution of the programs.

The strategies to obtain the implementation of the integration policies, include:

- a. Obtaining the maximum participation in the process of the two principal entities of the Sector, that is: Ministry of Health and Social Security Agency.
- b. The progressive implementation of integration from a local level and based on the experiences obtained in the integration from a local level and based on the experiences obtained in the integrated provinces.
- c. Promotion and development of the systems of communication, information and orientation in all its levels.
- d. Promotion and implementation of coordination with all sectors related to Health.

- e. Promotion of the best participation of the community, of private and international organizations, in the process of integration.
- f. Homogenization of the technical-administrative systems and structures of the two entities - Social Security Agency and Ministry of Health - at a national regional (provincial) and local level.
- g. Definition of the basic regulations that article 107 of the National Constitution may develop, and which establishes Health Integration.

## HUMAN RESOURCES

### 1. The Situation and the Problem

The scarcity of human resources in relation to demand for their services is a documented problem in Panama's health sector. This is particularly exaggerated due to the geographical, occupational and institutional maldistribution and malutilization of these resources.

#### Maldistribution Problems

Table I shows the distribution of public sector health personnel, rural vs. urban and by province. The concentration in the City of Panama is especially notable. More than 86% of all human resources are found in urban areas, 65% of doctors, 50% of the dentists, and two-thirds of the nurses reside in the capital while only one-third of the population lives there. (1) The ratio of health personnel per 10,000 inhabitants also varies greatly by province from that of national ratios, as shown in Table 2. Outside of the metropolitan centers of Panama City and Colon, all the provinces except Bocas del Toro, show manpower ratios far below the national averages. In Bocas del Toro the higher ratio could be due to the fact that it is an integrated province, with salary, housing and scholarship incentives. It also has the presence of the Banana Co. hospital, now part of the Caja de Seguro Social (CSS), providing jobs for more personnel.

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(1) Ministerio de Salud, Estadística de Salud, 1974

This should not obscure the fact, however, that the poor, marginal urban areas of Panama City do not receive the same coverage. While little data is available on the human resources available to this population, preliminary studies indicate it is more similar to rural Panama in levels of income, housing, education, birth rates, and probably in its access to these human resources. Its malnutrition rate has been shown to be more severe than in rural areas. (2)

The geographical maldistribution of health professionals becomes most important when it is correlated to the distribution of health problems in Panama as seen in the morbidity and mortality statistics. In general, the rural areas are clearly those with the highest death rates, birth rates and morbidity. Tables in Part I of the assessment report show this. Thus, where the greatest need exist for services, there is the least amount of human resources available. Medical visits by province show widely varying use rates.

In addition to the geographical maldistribution of health professionals, an occupational maldistribution is present, reinforcing the problem. That is seen in the types of health manpower currently available and the needs projected to 1980 discussed below. Given the need for basic primary care, preventive medicine and workers in nutrition, health education, immunization and the like in the rural areas, a much greater need exists for appropriate rural outreach workers. This means

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(2) See "Las Barriadas de Emergencia" Report in Annexes and recent MOH study of malnutrition in San Miguelito.

less emphasis on training physicians who are both more expensive to train, more appropriate to curative than preventive and primary care, and overtrained for basic services needed in rural areas. In addition, it is more difficult to obtain physicians for service in these areas. It is thus the policy of the GOP to increase the number of basic outreach workers, particularly nurse auxiliaries and health auxiliaries to meet these needs.

The third element relevant to the problem of maldistribution is an institutional one. The division of human resources in the public sector between the Ministry of Health (MOH) and the Social Security Institute (CSS) adds to inefficient use of personnel. Higher salaries and better equipped facilities, more adequate financing and better working conditions, have resulted in more personnel per bed and more personnel per population served for CSS beneficiaries than for MOH clientele. Table 3 shows some of these differences. Integrating the sector is designed to eliminate these differentials by assigning only eight or four hours/day contracts for physicians in CSS or MOH, relocating personnel where needed in the health region (province) and equalizing salaries. By limiting the working day to a more reasonable number of hours, salary per hour can be raised and more service given per hour.

#### In-Service Training Needs

Based on a 1971 study of in-service training needs, some 37% of sector personnel need in-service training of some degree. For profes-

sional and technical people that figure is 27% or some 1,777 persons based on 1974 total sector employment. (1) Table 4 shows the 10 most numerous occupations needing in-service training. Of number one importance are nurse auxiliaries, which is a critical element in improving coverage of rural areas cited as a priority for sector programs.

#### Lack of Planning

Until now there has existed no human resources planning process either for general sector resources or for those corresponding to each agency's needs. Health programming has been carried out without taking into account manpower already trained by other sectors, nor specific health sector manpower. (2)

#### The Determinants of Supply and Demand

Supply: A number of variables will affect the supply of health manpower in Panama as elsewhere, including its number of medical school and other health personnel graduating, out or immigration of manpower, occupational specialization, distribution of the manpower and overall productivity. As usual, data on the public sector is much more complete on each of these than for the private sector. In Panama the private sector employs a very small percentage of total health personnel, varying by occupation, but estimated at near 7% for nurses and 8% for doctors. (3)

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(1) COFADE study cited on pp. 91-96 of Situacion Actual.

(2) Enrique Garcia Report, p. 11

(3) Guerra, Federico, "Necesidades de los Principales Recursos Humanos en Salud", MOH, 1975, p. 17.

For the moment let us consider only the total supply expected. Much of the supply of Panama's health manpower has in the past been trained outside the country including more than 50% of all professionals registered with IFARHU in 1975. (1) Several medical specialties, along with nutritionists, public health graduates, and sanitary engineers are totally trained outside the country. On the other hand, little evidence exists of any significant outmigration. See Table 5 for data on immigration of personnel to U.S. since 1970.

To project the total supply of manpower available to 1980 requires various assumptions; in particular the expected number of graduates from various programs. Charts 25, 26 and 26A in the Annex of Situación Actual list the enrollments since 1970 and graduates since 1970. Enrollments have increased significantly in the University of Panama Medical School since 1970, from 156 to 786 per year in 1974, the number of graduates, including foreign, was only 93 in 1974. The past two years enrollment has reached 280 new students per year. The entry into the market of over 100 doctors per year is conservatively predicted between 1975-1980. (2)

The numbers of other key health personnel expected to be produced by 1980, based on expected enrollments and graduation rates are as follows: 800 nurse auxiliaries, 784 nurses, 200 health auxiliaries, 180 medical technologists and 167 dentists. (3)

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(1) IFARHU: Instituto para la Formación y Aprovechamiento de Recursos Humanos.

(2) See p. 99, "Situación Actual" y Necesidades de los Recursos Humanos.

(3) See p. 99, "Situación Actual".

Demand

Estimating future demand for health manpower is even more difficult since it depends on structure and growth of the population (age, sex), changes in purchasing power for health care, knowledge of availability, and actual amount available and accessible, which in Panama will be affected by integration of the sector, and ability of the economy (esp-GOP) to provide jobs for these personnel.

Two thorough analyses of the demand for physicians, nurses and nurse auxiliaries, have been carried out in 1975 in Panama. (1) In making his estimates, Guerra takes account of MOH norms for increased coverage of the population by distinct groups by 1980, number of visits per patient, expected norms for production of each of the health professions, expected number of births and retirement and death rate of the professionals. Thus in Cuadros 5-7 of Guerra's study we find estimated needs for this manpower broken down by type of patient. (2) Interestingly he shows extra needs due to actual observed productivity of professionals being below what norms dictate. To these estimates are then added a factor to correct for manpower needs in the private sector

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(1) Guerra, Necesidades de los Principales Recursos Humanos; and Situación Actual y Necesidades.

(2) Guerra's study is attached as Annex to the HSA.

TABLE 7

Expected Need and Supply of Health Manpower by 1980 - Including  
Both Public and Private Sector

	(1) Trained in this Profession 1974	(1) Employed in this Profession	(1) Expected Graduates by 1980	(2) Estimated Need 1980 (Guerra)	(1) Estimated Need 1980 (Correa)
Doctors	1,489	1,213	677	1,437	1,890
Nurses	852	1,131	784	1,531	1,700
Nurse Auxiliaries	1,800	2,265	800	2,358	3,380
Dentists	230	210	167	386	380
Health Auxiliaries(3)	64(as of 1975)		200	—	1,050

For similar data on other occupation groups see *Situación Actual* study, pp. 83, 99;  
and *Guerra* study, Cuadro 9

(1) Based on Situación Actual data, p. 83, 99

(2) Based on *Guerra* study, 1974

(3) Health auxiliaries didn't exist until 1975 - Need for them projected by Correa  
study, not Guerra.

plus the fact that only 75% of health manpower works full-time in patient care. Cuadro 8 of his study, reprinted as Table 6, is thus very useful for total manpower planning in the area of physicians, nurses and nurse auxiliaries. When these projections are placed alongside data on existing personnel, (see Table 7), surpluses and deficits clearly stand out. The Correa study of human resources carried out for the HSA found some 1,489 physicians were reported already trained in 1974, including those in teaching, research and other non-practicing, which is 52 more than the 1980 need found in Guerra's study.

Even Guerra's projection could be liberal toward the high side, since he used a birth rate of 37.0/1,000 to make his projections, while the reported rate in 1974 was down to 31.0/1,000. If we consider the projected need for manpower in the Correa study we should have a good idea of the possible range for reasonable projections. This methodology for projecting 1980 need is based on the expected rate at which the government will employ health personnel, based on past trends, in relation to total personnel.

Even accepting the most generous projected need for physicians a surplus seems evident. The impact of added, unneeded physicians has strong financial impact on the health sector, since by law, the GOP must employ all physicians for two years of internship after graduation. A reevaluation of this law must therefore be considered in light of physician needs.

A vast oversupply of physicians is thus predictable by 1980 unless several conditions prevail: one, the limiting of entrance to medical school, through tougher requirements, ceiling on spaces, or some other measure. This however, comes in clear confrontation with GOP policy of open enrollment. Two, GOP absorbs far more physicians in the public health sector than required; three, demand for services increases more rapidly than predicted due to greater accessibility, purchasing power (especially due to expanded CSS coverage) and education. There is an indication that demand for physicians will increase rapidly with integration, as medical visits have increased in the five integrated provinces (also for dental visits) the first year after integration.

One other way of looking at the human resource situation is to compare Panama's situation and 1980 goals to those of the Ten Year Health Plan for the Americas. Table 8 summarizes this situation, and shows Panama exceeding some of the 1980 goals already.

A final word of caution on interpreting data on manpower supply and demand is in order. Different data sources give differing totals, since at times only the public sector personnel is included. These discrepancies will be resolved definitively in the final document preceding loan request.

### Objectives

Given the human resources problems of shortage, maldistribution, inappropriate utilization, lack of appropriate training, and poor planning, several objectives are appropriate for the health sector. The

principal objectives which programs planned for the health sector will attempt to fulfill are the following:

- 1) Improve the distribution of health manpower to reduce geographical, occupational, and institutional maldistribution.
- 2) Make more appropriate use of human resources.
- 3) Train new health personnel and upgrade training of existing personnel according to the priorities of better serving rural and marginal urban areas.
- 4) Develop a process and mechanism for effective human resource planning and education in health.
- 5) Meet or surpass the human resource goals of the Ten Year Health Plan for the Americas.

It should be clear that these objectives are all in harmony with the over-riding objectives of Panama's Health Policy - especially that of improving access to services for the marginal and rural population.

#### Strategies

During the period 1970-1974, it became clear to the GOP that there were insufficient human resources being used to complete the development objectives of the health sector, particularly in rural and marginal urban areas. A strategy for increasing these resources might focus on increasing the total amount of trained personnel, redistributing existing manpower, increasing the productivity of existing manpower, or some combination of the above.<sup>(1)</sup>

(1) Productivity is discussed under section IV - Manejo de Servicios.

The strategy proposed by the GOP for carrying out the objectives relating to human resource problems is to integrate the training of health personnel into an appropriate health team, with training adequate to the needs of rural areas and a program of incentives to motivate personnel to locate in the rural areas. The entire strategy will be based on an improved human resources planning process.

What the strategy is designed to accomplish is the development of a rural health team appropriately trained and utilized. The strategy recognizes the fact that there are already too many resources going into specialized medical personnel, particularly physicians, who then concentrate in the urban areas, particularly Panama City. The needs of the rural areas for basic primary care, nutritional improvements and sanitation, thus go unmet. The alternative strategy of attracting physicians to vast numbers of rural areas is neither feasible nor rational, given the urban pull, expense of training, and inappropriateness of their training to the basic needs of the rural areas.

Recently, the GOP has initiated such a programming designed to make greater use of basic and middle level personnel as the basis for changing the health system. The MOH of Panama along with other countries of the Hemisphere has come to consider such a strategy as "fundamental to resolving the scarcity of technical personnel, especially in the rural areas"<sup>(1)</sup>. The recommendation to use this type of personnel (middle and basic level), was established in the

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(1) García "Política y Proceso de Planificación", pp. 12-13

January, 1975 meeting in Medellín, Colombia, "Seminar on Human Resources and Medical Attention". The strategy of an integrated health team to serve rural areas has another key component designed to assist its success. This is the incorporation into the technical health team of the human resources of the communities themselves. The communities themselves. The community Health Committees, created under Decree #401 of December 29, 1970, are designed to involve growing community participation in the planning and delivery of health services in their community. Section IV of the Assessment Document analyzes the role of these committees. <sup>(1)</sup> The GOP strategy for integration of training also includes the integration of human resource planning, training and allocation among the principal organization in the public sector, MOH, CSS and University of Panama Medical School. As functional and organizational integration in the sector continues and reaches more and more provinces, its effects on improved human resources allocation should be even more obvious. The sector integration process is discussed in depth elsewhere in this Report.

Another example of integration effects can be shown for Colon Province. Medical visits to the countryside previously carried out by at least 4 distinct groups (MOH, National Guard of Panama, U.S. Army and Escuela de las Américas), now must all clear their plans and coordinate their efforts through the Regional Director for Integration.

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(1) See the Report "Participación de los Comités de Salud", for evaluation of their roles.

### Programs

Several specific programs for carrying out the strategy outlined above, and aimed at accomplishing the objectives stated previously have begun or are proposed:

- 1) Establishment of a Human Resources Planning Organization.
- 2) Formation of Health Auxiliaries for developing primary health care in rural areas.
- 3) Decentralization of the training of Nurse Auxiliaries.
- 4) Establishment of a Community Nursing School in Azuero.
- 5) Limiting the formation of health manpower in professions where a surplus is expected.
- 6) Increasing the incentives to work in areas of difficult accessibility and low coverage.
- 7) Training of Health Committees.
- 8) Establishment of a Division of Health Sciences in the University of Panama.
- 9) In-service training program.

### Training of Health Auxiliaries

This is a new occupation in the sector developed for the purpose of preparing persons skilled in many health-related activities to work principally in rural areas, where few medical and nursing personnel practice.

The program was initiated in 1973, but in 1975 it is still limited to the provinces of Colon and Bocas del Toro (both integrated provinces).

As of 1975, some 65 persons had taken the 16 week course. This is the principal expansion program of human resources training proposed by the GOP, with the goal of extending these resources to additional provinces of the country and ultimately providing these personnel to all communities when resources permit, and a need is demonstrated.

Decree No. 32 of 1975, specifically authorizes the MOH to train them to serve rural areas (the other category is university trained). Currently, they are required to be 18 to 35 years old, education and completion of a 16-weeks intensive course of study. They are trained in the basics of Maternal Child care, nutrition and health education, sanitation, vaccinations and community development.

The GOP proposes to cover as many communities as possible with this personnel. But, given the cost of supporting them and construction of health outposts for them to operate from, it is currently proposing to train some 250 by 1980. The 250 health posts would cost \$5,000 each and training of 250 auxiliaries some \$90,000-\$120,000 per 100 trained.

#### Program for Human Resources Planning

This program has two thrusts to it. First, beginning in 1975, the MOH restructured itself to create a Division of Teaching and Research, which in conjunction with respective specialized Departments of the MOH is assigned to plan the type, number, distribution and utilization of all health manpower needed in its programs. Alongside this development, the Faculty of Medicine has just created the Medical

Education Unit to coordinate medical education planning in conjunction with both the MOH and CSS. Strengthening of this human resource planning ability could be assisted thru outside TA.

Human resource planning is one part of a desired program to strengthen general national health planning and administration capabilities in the sector. With the currently existing small staff of MOH, planned total integration by 1976 with CSS, strengthening national planning capabilities through training and technical assistance is a program goal for 1976-1980 period.

#### Nurse Auxiliaries Program

A major program emphasis since 1970 has been the training of nurse auxiliaries, to staff hospitals and rural health centers, with at least 2,265 now trained and working in the public sector. Studies, however, predict a need for upwards of 800 more by 1980. Two problems obstruct the expansion of this program, however. One is cost of maintaining the additional salaries of these professional, some \$5,000/year, so that no international assistance for additional training is being sought at this time. The other problem has been their tendency to congregate in the City of Panama, with nearly 55% located there in 1974.

Since 1974, training on site in the provinces, rather than in Panama City has begun to correct this problem. Currently, some 200/year are being trained, with expansion limited by GOP ability to support additional positions.

### Establishment of a Community Nursing School

The integrated Province of Azuero is the result of combining the small provinces of Los Santos and Herrera for purposes of health integrated planning. In 1972, in light of the alarming scarcity of nurses and their poor distribution, a Community Nursing School was started here. It is designed strictly for providing community oriented nurses to serve in rural areas. The 24 month intensive course provides both the capacity and obligation to work in rural areas for 48 months if the government provides a scholarship for the training. While emphasis is on the community level, they are capable also of hospital service. Between 1976 and 1980 some 80 per year should be graduated.

### Incentives Programs for Rural Placement

The GOP has developed a number of incentives designed to increase rural coverage. These include expansion of programs like Health Auxiliaries and community nursing, with rural placement a requisite, while deemphasizing curative medicine and nursing to attract personnel, especially physicians, to remote areas; a package of housing and salary subsidies, and more scholarship opportunities offered. Efforts are also made to locate more advanced equipment there.

### Training of Health Committees

Since the community itself is emphasized as a vital human resource in the sector, training at this level is also a concerted program. The new Health Auxiliaries are especially assigned to this program. The Health Committee Program is discussed in detail elsewhere

in this Report, however.

### Division of Health Sciences at University of Panama

The creation of a Division of Health Sciences within the University of Panama is seen as one effective way of improving human resource planning and training to meet the country's needs. The creation of such a Division would be directed at centralizing the training orientation of the major health professional groups, including doctors, dentists, nurses and pharmacists. In addition, there could be created within this Division the capability to train health and hospital administrators and planners which are currently in very short supply and trained outside the country. <sup>(1)</sup> The increasing need for trained administrative personnel to carry out effective administrative reforms and integration in the sector would be appreciably aided by such a program of training. Having the training within the country is preferable to exterior training, by having a curriculum more relevant to Panama's problems, and less likelihood of losing the professional to foreign migration after exposure during his training.

### In-Service Training

The assessment has encountered needs for in-service training of health professionals in several fields. Part of the training needs results from employment of personnel such as nurse auxiliaries twenty years ago, and later upgrading standards and requirements.

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(1) Chart 23 "Situación Actual"

An especially high percentage of administrative personnel, particularly at CSS, have been identified as needing upgrading in skills.<sup>(1)</sup> To meet this challenge, several training programs for public sector personnel have been established by MOH, CSS, University of Panama, IDAAN and international agencies including AID, OAS, PAHO and CELADE. The MOH, for example, runs training programs all year long, for both technical and administrative personnel. But the objectives of these programs are now aimed at forming a health team with an integrated curative and preventive focus on the community. The emphasis of this program is now on paramedical personnel. Observing CSS training programs for their personnel in recent years show an emphasis on the following areas: dental assistants and dentists, upgrading of auxiliaries, new techniques for lab. clinician.

The University is especially involved in upgrading and expanding nursing skills, particularly in specialty areas.

#### Financing the Programs

All of the programs outlined in this discussion have already been initiated by GOP, except for the creation of a Division of Health Science at the University. The importance of this fact is that the programs are already proven technically and politically feasible, in varying degrees. However, to expand them to the level to meet sector

(1) COFADE study of public sector training needs, 1972 appearing as Cuadro 36, Anexo de Situación Actual, de las Necesidades de Recursos Humanos.

needs demonstrated in this assessment, additional financing is needed from AID or other donors. Training of 250 health auxiliaries is estimated to cost \$225,000-300,000, which is solicited from AID loan. While the need for these para-professionals by 1980 may be as high as 1,000, GOP does not feel it can absorb the financial burden of supporting more than this number by 1980, especially since the assistant is part of an integrated approach including construction of health posts, aqueducts, etc., the cost would be even much greater than just that of supporting additional auxiliaries.

#### Evaluation Plan for Human Resources Programs

To evaluate accomplishments in health manpower programs one must relate the program outputs to objectives established in this area. At an elementary level the evaluation can be one of process. Were the number of persons trained or produced which the programs were designed to produce. At this level our evaluation can be based on:

- 1) Did the sector meet the goals of the GOP as adopted in relation to the 10-year Health Plan of the Americas (1971-1980). These are clearly stated in Table 10, some had already been met by 1973.
- 2) Did the proportion of trained personnel in rural areas increase, and by how much.
- 3) Were enough health assistants (auxiliaries) trained to staff the 250 health posts to be created by this project by 1980. (Given a 20% attrition rate, some 300 would have to be trained).

- 4) How many Health Committees were established and given training?
- 5) Were 400 community nurses trained and placed in rural areas and did the % of nurse auxiliaries working in rural areas increase?
- 6) Was a Division of Health Science established?
- 7) How many personnel were attracted to rural areas by program incentives, and by which specific incentives?
- 8) Did the Faculty of Medicine succeed in holding down enrollments?
- 9) Were salary differentials, personnel policies and productivity norms equalized for CSS and MOH personnel in its integrated provinces?
- 10) Was centralized, coordinated human resource planning achieved, if so, through what mechanism?

It will be seen that even at this level of evaluation a more detailed plan for carrying out such an evaluation must be developed. For example, some type of survey of doctors located in rural areas would have to be given to determine what, if any, planned incentives attracted them there. An evaluation scheme for the health committee training program will also be needed.

A more in-depth evaluation would seek to link changes in human resources to changes in health services and even health status. While direct causal links would be impossible to prove, an evaluation plan could at least look for positive, strong correlations. For example:

- 1) Measure changes in morbidity or mortality status that occurred in communities without access to this manpower.
  - 2) Were additional health services received due to additional personnel (by types of personnel).
    - a) Number of medical visits
    - b) Vaccinations
- } Correlated to decreasing mortality and morbidity

TABLE No. 1

Distribution of Health Sector Personnel - 1974

	Doctors	Nurses	Dentists	Nurse Aux.	Lab. Tech.	X Ray Tech.	Sanitary Inspectors
Total Panama	1,316	1,126	210	2,265	376	103	148
Total Rural	175	92	N.A.	N.A.	N.A.	N.A.	N.A.
Total Urban	1,141	1,034	N.A.	N.A.	N.A.	N.A.	N.A.
Panama City	811	753	107	1,242	198	55	25
Colón City	N.A.	N.A.	N.A.	174	13	14	14
<u>PROVINCES</u>							
Bocas del Toro	36	43	7	83	12	3	5
Cocle	43	22	12	84	13	6	10
Colon	81	69	10	147	24	6	15
Chiriqui	142	108	29	272	50	12	24
Darien.	4	3	2	16	2	-	3
Herrera	37	21	6	97	15	6	8
Los Santos	28	19	10	93	14	6	16
Panama	896	824	125	1,391	229	62	25
Veraguas	46	23	9	82	17	2	21

Source: Situación Actual y Necesidad de los Recursos Humanos, Octubre 1975, Cuadros 27 and 31 of the Annex, and Ministerio de Salud, Estadística de Salud, 1974, page 24.

TABLE No. 2

RATIO OF SELECTED HEALTH PROFESSIONALS PER 10,000  
POPULATION BY PROVINCE - 1974

	Doctors	Nurses	Dentists
Total Panama	8.1	7.0	1.3
Panama City	15.2	14.1	2.0
<u>PROVINCES:</u>			
Bocas del Toro	7.3	8.7	1.4
Cocle	3.0	1.5	0.8
Colon	6.6	4.9	0.8
Chiriqui	5.4	4.1	1.1
Darien	1.7	1.2	0.8
Herrera	4.7	2.7	0.8
Los Santos	3.8	2.6	1.4
Panama	12.5	11.5	1.7
Veraguas	3.0	1.5	0.6

Source: Estadísticas de Salud - 1974

TABLE No. 3

1974

	<u>Ministry of Health</u>	<u>Caja Seguro Social</u>
1. Total Health Personnel	3,528	6,410
2. Doctors	661	714
3. Nurses	611	343
4. Nurse Auxiliaries	1,533	760
5. Doctors/bed		
6. Nurses/bed		
7. Investment/ theoretical coverage *		\$114.39
8. Appointments		
Medical Appointments		
% Population served *	100%	36%

\*

Theoretical coverage of MOH is 100% of population, and for CSS 36% in 1974. But there will be significant increase in coverage during 1975, to as many as 50% of total population and 80% of urban.

Source: MOH, Estadística de Salud, 1974, p.17

CSS data from Situación Actual, Cuadro 14 del Anexo

Note however, that when adding these totals the number is greater than that reported by MOH for whole sector, possibly due to some double counting.

TABLE 4

Top Ten In-Service Training Needs of Panama Health Professional  
and Technical Workers, 1974 (1)

Occupation	Number	% of Employed
1. Nurse Auxiliaries	793	35.0
2. Nurses	226	20.0
3. Medical Technologists	197	52.4
4. Physicians	131	10.0
5. Sanitary Inspectors	60	35.0
6. Pharmacists	49	45.0
7. Physiotherapists & Kinesiologists	31	70.0
8. Dietitians and Nutritionists	30	50.0
9. Radiologists	24	23.0
10. Biologists	24	40.0

(1) Based on COFADE study of 1971 and projection of those figures forwarded to 1974.

TABLE No. 3

1974

	<u>Ministry of Health</u>	<u>Caja Seguro Social</u>
1. Total Health Personnel	3,528	6,410
2. Doctors	661	714
3. Nurses	611	343
4. Nurse Auxiliaries	1,533	760
5. Doctors/bed		
6. Nurses/bed		
7. Investment/ theoretical coverage *		\$114.39
8. Appointments		
Medical Appointments		
% Population served *	100%	36%

\*

Theoretical coverage of MOH is 100% of population, and for CSS 36% in 1974. But there will be significant increase in coverage during 1975, to as many as 50% of total population and 80% of urban.

Source: MOH, Estadística de Salud, 1974, p.17

CSS data from Situación Actual, Cuadro 14 del Anexo

Note however, that when adding these totals the number is greater than that reported by MOH for whole sector, possibly due to some double counting.

TABLE 4

Top Ten In-Service Training Needs of Panama Health Professional  
and Technical Workers, 1974 (1)

Occupation	Number	% of Employed
1. Nurse Auxiliaries	793	35.0
2. Nurses	226	20.0
3. Medical Technologists	197	52.4
4. Physicians	131	10.0
5. Sanitary Inspectors	60	35.0
6. Pharmacists	49	45.0
7. Physiotherapists & Kinesiologists	31	70.0
8. Dietitians and Nutritionists	30	50.0
9. Radiologists	24	23.0
10. Biologists	24	40.0

(1) Based on COFADE study of 1971 and projection of those figures forwarded to 1974.

TABLE 5

HEALTH MANPOWER FROM PANAMA\* ADMITTED AS IMMIGRANTS TO U.S.

YEAR	PHYSICIANS	DENTISTS	PHARMACISTS	HEALTH TECHNICANS AND TECHNOLOGISTS	NURSES
1974	6	2	2	5	12
1973	13	0	1	5	16
1972	8	1	4	5	28
1971	6	0	0	2	29
1970	3	0	0	1	17

SOURCE: U.S. Immigration and Naturalization Service unpublished statistics

\* Panama given as last permanent residence.

TABLE 6

ESTIMACION DE LA NECESIDAD DE MEDICOS Y ENFERMERAS  
EN LA REPUBLICA DE PARAGUAY, SEGUN EL TIPO DE INSTITUCION  
EN QUE LABORAN: A LOS 1975 A 1980

AÑO	MEDICOS			ENFERMERAS			AUXILIARES		
	Total	Oficial	Particular	Total	Oficial	Particular	Total	Oficial	Particular
1975 .....	1,271	1,033	97	1,271	1,102	89	1,983	1,689	99
1976 .....	1,326	1,121	100	1,326	1,233	93	2,058	1,955	103
1977 .....	1,387	1,162	104	1,387	1,290	97	2,135	2,028	107
1978 .....	1,447	1,210	108	1,447	1,346	101	2,208	2,098	110
1979 .....	1,511	1,257	112	1,511	1,405	106	2,291	2,167	114
1980 .....	1,531	1,319	118	1,531	1,470	111	2,358	2,240	118

TABLE No. 8

Human Resources	Plan for the America Goal	Current Panama Situation (1974)	1980 Goal	(1) Number to be Added to Meet 1980 Goal
Doctors	8 per 10,000	8.1 per 10,000	8.0 per 10,000	0
Dentists	2 per 10,000	1.3 per 10,000	2.0 per 10,000	176
Nurses	4.5 per 10,000	7.0 per 10,000	8.0 per 10,000	418
Dental Auxiliaries	2.2 per 10,000	0 per 10,000	3.0 per 10,000	579
Nurse Auxiliaries	10.5 per 10,000	14.1 per 10,000	24.0 per 10,000	2367

Sources: El Plan Decenal de Salud para las Américas y Las Metas de Salud de la República de Panamá.

(1) Number of personnel to be added is based on estimated population for 1974, 1980 and existing personnel as recorded in Table I of this chapter.

RESOURCES IN RELATION TO PHYSICAL PLANT

In 1974, the MOH had a total of 203 installations, 25 integrated and specialized medical centers, i.e., general hospital and rural hospitals, 21 health centers with a maternal/child care annex, 52 health centers without maternal child care annex, and 105 health subcenters.

While it is evident that advances have been achieved through the expansion or remodeling of existing medical and sanitary facilities, problems of poor maintenance in existing facilities and the unequal distribution of beds and equipment in the country persist. These problems are aggravated by the construction of additional physical facilities without studies being conducted beforehand as to the quantity and availability of human and budgetary resources to assure the equipping, operation and maintenance of the projects.

The health authorities recognize the value of conducting a detailed study of the condition and use of facilities in the health system in the country prior to constructing additional facilities. This resource inventory is planned as an integral part of the Health Diagnosis. The Diagnosis will also cover the estimated requirements for maintaining installations and articulate the type of physical facilities required for both rural and urban fringe areas.

This study is in its preliminary stage. With the on set of the dry season (December 1975), a more detailed analysis of all health facilities around the country will be conducted. At the same time, an inventory of existing equipment at each installation will be updated

with the objective of determining the condition and adequacy in support of the health services which the facility will deliver.

OBJECTIVE RELATIVE TO PHYSICAL FACILITIES

The objective is the provision of adequate physical installations for health services throughout of the country.

STRATEGY

The strategy is:

1. bringing up to adequate standard those facilities which require repair.
2. New construction in those areas where physical facilities have deteriorated to an extent that construction yields the better cost/benefit rates, and
3. construction in areas where physical facilities do not presently exist.

PROPOSED PROGRAM

The proposed program can be summarized as follows:

1. Constructing health facilities with emphasis on rural and urban fringe areas.
2. Repair and remodelling of existing facilities.
3. Establishment of a maintenance program for physical facilities.
4. Equip and maintain basic equipment necessary for use in the facilities.

DIAGNOSTICO DE LAS OBRAS CIVILES  
 INSTALACIONES DEL MINISTERIO DE SALUD  
 PROVINCIA DE PANAMA

①

INSTITUCION	COND ACTUAL	VALOR ACTUAL	Nº CONSULTORO	Nº LABORATORIO	Nº ODONTOLOGIA	EQUIPO	REPARACIONES	PROYECCIONES	COSTO DE PROJ	EQUIPO FIJO	COST DE EQUIPO	COSTO TOTAL	OBSERVACIONES
HOSPITAL VIEJAS	BUENA												
HOSPITAL DEL VINO	BUENA												
HOSPITAL M. GUTIERREZ	REGULAR												
C.S. ESCUELA FELIZ	REGULAR	60.000	5	1	2		PISO Y TECHO NUEVO - 10.000	CONSTRUCION CENTRO NUEVO	600.000			600.000	ESTRUCION DE MADERA Y MUEBLES EN SALAS CONSULTORIO. UNO NUEVO. NUEVO
C.S. LA ROSA	BUENO	80.000	5	1	1		MANTENIMIENTO 1.000		1.000			1.000	
C.S. LA ANA	REGULAR	60.000	3	1	1		PISO Y TECHO 10.000	CONSTRUCION CENTRO NUEVO	600.000			600.000	LA FERIA ALAS DEL CENTRO FACULTAD FOMER
C.S. SAN FELIPE	PROYECTO CONSTRUCION NUEVA		5	1	1			CONSTRUCION CENTRO NUEVO	35.000			35.000	CONSTRUCION NUEVA NO TIENE SUFICIENTE ESPACIO PARA LA REALIZACION DE SERVICIOS DE PEY Y ALESTRIA
C.S. MERCADO SEBASTI	BUENO	40.000	3										
C.S. CIRUNDA	BUENO	50.000	1										
C.S. RIO ABATO #1	REGULAR	120.000	3	1	1		TECHO Y CILINDRO PRENATE 3.500	ANEXO CON URUBERIA	100.000			100.000	ANEXO NUEVO DE URUBERIA Y PARTES DE CUNA. MAT. SERRANOS PLUMBOS (CANTAS 100)
C.S. RIO ABATO #2	BUENO	60.000	3	1	1								
C.S. POMA LA CATA	BUENO	30.000	2		1			ANEXO AMPLIACION	35.000			35.000	ANEXO NUEVO
C.S. PULO NUEVO	EXCELENTE	80.000	5	1	2								
C.S. CONTROL DEPARTAMENTO													
C.S. NUEVO VERGALLO	REGULAR	80.000 + 20.000	3				PISO Y TECHO 10.000	CONSTRUCION NUEVA	600.000			600.000	ANEXO CON EL BARRIO EN LA ZONA ESPACIO COMPLEMENTARIO DE CONSULTORIO
CLINICA FISIOTERAPIA SAN MARCELINO	BUENA	40.000					MANTENIMIENTO		1.000			1.000	TOTALMENTE NUEVO
C.S. SAN PEDRO	EXCELENTE	70.000	3										
C.S. SAN DIAZ	BUENA	70.000	3					PARTE CONSULTORIO	10.000			10.000	
C.S. PEDREGAL	REGULAR	30.000	2					ANEXO ERIGIEND	10.000			10.000	ANEXO ERIGIENDOS RECONOC SERVICIO URUBERIA ANEXO
C.S. TOCUMEN	BUENA	30.000	2					ANEXO	10.000			10.000	ANEXO
C.S. ALCAZAR DIAZ	EXCELENTE	50.000	2										
C.S. CHURUBA	BUENO	30.000	2										
C.S. SAN MIGUEL													
C.S. CIEPO	REGULAR	25.000	2		1		TOTAL	CONSTRUCION NUEVO	40.000			40.000	
C.S. ESCORA	BUENO	30.000	2		1			ANEXO	10.000			10.000	
C.S. ESCORA	BUENO	30.000	2		1			TECHO NUEVO	100.000			100.000	CAMBIO TOTAL LOS TUBOS
C.S. ESCORA	BUENO	2 MILLONES +					TECHO Y CILINDRO PRENATE		20.000			20.000	
C.S. ESCORA	BUENO	100.000	3		1								
C.S. ESCORA	BUENO	45.000	3		1								
C.S. ESCORA	BUENO	30.000	2		1			ANEXO	11.000			11.000	CONSTRUCION NUEVO
C.S. ESCORA	REGULAR	30.000	3		1			ANEXO ERIGIEND	40.000			40.000	
C.S. ESCORA	BUENO	70.000	2		1								
C.S. ESCORA	BUENO	75.000	2		1								
C.S. ESCORA	BUENO	85.000	2		1								
C.S. ESCORA	EXCELENTE	25.000	2		1								
TOTAL												14.676.200,00	





DIAGNOSTICO DE LAS OBRAS CIVILES  
 INSTALACIONES DEL MINISTERIO DE SALUD  
 PROVINCIA DE COCLE

(4)

INSTITUCION	COND. ACTUAL	VALOR ACTUAL	Nº CONSULTORO	Nº LABORATORIO	Nº ODONTOLOGIA	EQUIPO	REPARACIONES	PROYECCIONES	COSTO DE PROJ	EQUIPO FIJO	COST. DE EQUIPO	COSTO TOTAL	OBSEVACIONES
1 S.C.S. ASUNCIÓN													
2 S.C.S. BOYACAL	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO					600	
3 S.C.S. CAJAMARCA	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO					600	
4 S.C.S. PATATE	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO					600	
5 S.C.S. TACABO	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO					600	
6 S.C.S. CHILTE													
7 S.C.S. CASHI	BUENO	16,000	1			INCOMPLETO	TECHO Y PANT					700	
8 S.C.S. PLAZOCCO	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO					600	
9 S.C.S. TAPAKO	BUENO	16,000	1			INCOMPLETO	MANTENIMIENTO	ANEXO	7,000			7,000	
10 S.C.S. LA PINTA	BUENO	29,000 + 29,000 58,000	2	1	1	INCOMPLETO	TECHO PUERTA	ANEXO RESERVA	3,000			4,000	
11 S.C.S. EL COPE	BUENO	17,000	1			INCOMPLETO	MANTENIMIENTO	ANEXO MANTEN	10,000			10,000	
12 S.C.S. EL PERICO	BUENO	17,000	1			INCOMPLETO	MANTENIMIENTO					600	
13 S.C.S. ANTON	BUENO	48,000	3	1	1	COMPLETO	MANTENIMIENTO	ANEXO MANTEN	8,000			16,000	
14 S.C.S. RIO TATO	EXCELENTE	37,000	2	1	1	INCOMPLETO	PREVIDENCIA	TICARAS ARGENTOS					NUEVO EMPRESA COMUNAL
15 S.C.S. CHICU	BUENO	19,000	1			INCOMPLETO							
16 S.C.S. STA RITA													
17 S.C.S. EL VALLE	BUENO	10,000	2	1	1	INCOMPLETO	TECHO Y PANT	ANEXO	7,000			8,500	
18 S.C.S. NAGUA REYES EN DEMOLICION													
19 S.C.S. EL CRISTO	EN CONSTRUCCION	9,000	2		1			TERMINAR CONSTRUCCION	4,000			4,000	
20 S.C.S. LA LOBA													
21 S.C.S. SALTRONA													
22 S.C.S. EL TAPITO	EXCELENTE	80,000	2		1	INCOMPLETO							NUEVO
23 S.C.S. MATA	EXCELENTE	71,000	3	1	1	COMPLETO	PINTURA	ANEXO	8,000			8,500	CONSTRUCCION MANTENIMIENTO DE CAMAS NUEVO
24 S.C.S. CHURUPA	EXCELENTE	66,000	1			INCOMPLETO							
25 S.C.S. OLA	BUENO	18,000	1		1	INCOMPLETO		TERMINAR CONSTRUCCION	8,000			8,000	EN CONSTRUCCION
26 S.C.S. TOZA													
27 S.C.S. NUEVO AYO													
28 S.C.S. STA LUCIA													
29 S.C.S. EL CONDOR OLA													
30 S.C.S. SAN PABLO													
31 S.C.S. EL VALLE DE SAN JUAN													
32 S.C.S. EL CAÑO	BUENO	18,000	1		1	INCOMPLETO		TERMINAR CONSTRUCCION	8,000				TERMINAR OBRAS DE REPARA
33 S.C.S. LAS HILAS													
34 S.C.S. LAS SABANAS													
35 S.C.S. - COCCO	EXCELENTE	70,000	3	1	1	COMPLETO			8,000			8,000	
36 S.C.S. PEDREGOSA													
37 S.C.S. LA YERVA	EXCELENTE	19,000	1		1	INCOMPLETO							NUEVO
												62,700.00	







DIAGNOSTICO DE LAS OBRAS CIVILES  
 INSTALACIONES DEL MINISTERIO DE SALUD  
 PROVINCIA DE Chicuai-



INSTITUCION	COND. ACTUAL	VALOR ACTUAL	Nº CONSULTORO	Nº LABORATORIO	Nº ODONTOLOGIA	EQUIPO	REPARACIONES	PROYECCIONES	COSTO DE PROJ.	EQUIPO FIJO	COST. DE EQUIPO	COSTO TOTAL	OBSEVACIONES
1.H.S. JOSE OBALDIA	BUENA	3 MILIONES		2				REPARAR CUBIERTA ESTERILIZACION FIJO	600,000			600,000	EL CENTRO ESTERILIZACION FIJO... LA CUBIERTA EXTERIOR... REPARAR... (CONSULTORIO) Y REPARACION...
2.C.S. BARRIO CUNAR	EXCELENTE	50,000	3	1	1	INCOMPLETO		REPARAR CUBIERTA ESTERILIZACION FIJO	3,000	DE PARQUERIA, SILLAS, SUELOS Y MUEBLES	1,200	4,200	
3.C.S. SAN JOSE - SCS	BUENA	53,000	1	1	1	INCOMPLETO	PISO DE UNIDAD DE ATENCION	REPARACIONES	15,000	LABORATORIO Y PARQUERIA	2,000	19,000	REPARAR CUBIERTA ESTERILIZACION FIJO... REPARACIONES... LABORATORIO Y PARQUERIA...
4.C.S. SAN MATEO - SCS	REGULAR	50,000	4	1	1	INCOMPLETO	PISO DE UNIDAD DE ATENCION	REPARACIONES	6,000			6,000	REPARAR CUBIERTA ESTERILIZACION FIJO... REPARACIONES...
5.C.S. LAS OLMAS - SCS	BUENA	35,000	1			INCOMPLETO		REPARACIONES	3,000			3,000	REPARAR CUBIERTA ESTERILIZACION FIJO... REPARACIONES...
6.C.S. MI BOQUETE - SCS	BUENA	100,000	2	1	1	INCOMPLETO	TECHO Y CIELO PASO	REPARACIONES	6,000			6,000	CAMBIA TECHO Y CIELO PASO DE MADERA... REPARACIONES...
7.C.S. GUALACA - SCS	REGULAR	70,000	2	1	1	INCOMPLETO	REPARACIONES	REPARACIONES	1,700			1,700	REPARACIONES... REPARACIONES...
8.C.S. SECTOR #7													
9.C.S. CHIPIQUI - SCS	REGULAR	30,000	1	1	1	INCOMPLETO	CONSTRUIR ACERA	CAMBIA VENTANAS	1,200	ODONTOLOGIA 600		2,300	CAMBIA OPORTUNIDADES... CONSTRUIR ACERA... CAMBIA VENTANAS... ODONTOLOGIA 600...
10.C.S. SAN FELIX		300,000	3	1	1	COMPLETO		CONSTRUIR AREA ESTERILIZACION	2,000			9,000	CONSTRUIR AREA ESTERILIZACION... CONSTRUIR AREA ESTERILIZACION...
11.SCS LLANO NOPO	REGULAR	15,000	1			INCOMPLETO	MANTENIMIENTO 600					600	SUB-CENTRO DE SALUD
12.SCS STA. CRUZ - SAN FELIX	REGULAR	17,000	1			INCOMPLETO	MANTENIMIENTO 500					500	SUB-CENTRO DE SALUD
13.SCS. SAN LORENZO	BUENO	18,500	1			INCOMPLETO	MANTENIMIENTO 500					500	SUB-CENTRO DE SALUD
14.C.S. DE OLA SAN FELIX	BUENO	15,000	1			INCOMPLETO	PIINTURA 300					300	SUB-CENTRO DE SALUD
15.C.S. CEPPO ZEPEDA	REGULAR	13,000	1			INCOMPLETO	PIINTURA 300					300	SUB-CENTRO DE SALUD
16.C.S. DE MANCITO	BUENO	18,000	1			INCOMPLETO	TECHO Y CIELO PASO (1500)					1,000	
17.SCS SAN JUAN	BUENO	18,000	1			INCOMPLETO	TECHO Y CIELO PASO (1500)					1,000	
18.SCS LAS LAJAS	NO HAY							CONSTRUIR CENTRO	20,000			20,000	
19.SCS HORCAJITOS	BUENO	18,000	1			INCOMPLETO							
20.C.S. DOCAS DEL MONTE	BUENO	18,000	1			INCOMPLETO							
21.C.S. TOLE - SCS	REGULAR	25,000	2	1	1	COMPLETO		CONSTRUIR CENTRO	30,000			30,000	
22.C.S. REMEDIOS	BUENO	70,000	2	1	1	INCOMPLETO		CONSTRUIR CENTRO	10,000			10,000	
23.C.S. LA CONCEPCION	BUENO	200,000	3	1	2	COMPLETO		CONSTRUIR CENTRO				1,000	CONSTRUIR CALLE DE ACCESO Y ACERA DE CONCRETO
24.C.S. VOLCAN	EXCELENTE	70,000	2	1	1	COMPLETO					1,000		
25.SCS CEPPO PUNTA													
26.SCS CUESTA DE REDON													
27.SCS SAN ANDRES	BUENO	30,000	1		1	INCOMPLETO	TECHO Y CIELO PASO		2,000			2,000	ACTUALMENTE ADMINISTRACION EN ESCALA... REPARACIONES...
28.SCS PEDRO JABUES	BUENO	200,000	3	1	1	INCOMPLETO	TECHO Y CIELO PASO		3,000			3,000	CAMBIA TECHO Y CIELO PASO... REPARACIONES...
29.C.S. ROSERENO	NO HAY							CONSTRUIR CENTRO	150,000			150,000	
30.C.S. PROGRESO	NUEVO	40,000											
31.SCS CAJES - SCS													
32.SCS POTRERILLO ROSA	BUENO	10,000	1					CONSTRUIR CENTRO	20,000			20,000	CONSTRUIR CENTRO... REPARACIONES...
33.SCS PALMIRACORRAL	BUENO	15,000	1										
34.C.S. DOLEGA	EXCELENTE	70,000	2	1	1		MANTENIMIENTO		100			100	
35.C.S. POTRERILLO ABAD	BUENO	10,000	1										REPARAR PARTE DEL CENTRO COMUNAL

891,300.00

DIAGNOSTICO DE LAS OBRAS CIVILES  
 INSTALACIONES DEL MINISTERIO DE SALUD  
 PROVINCIA DE SAN BLAS

(10)

INSTITUCION	COND ACTUAL	VALOR ACTUAL	Nº CONSULTORO	Nº LABORATORIO	Nº ODONTOLOGIA	EQUIPO	REPARACIONES	PROYECCIONES	COSTO DE PROJ	EQUIPO FIJO	COST DE EQUIPO	COSTO TOTAL	OBSERVACIONES
1 C.A.I. COBACON DE JAYUM HARGANA	REGULAR	50,000.-	1	1	1		TRCAO Y CABLEADO 3,000.-	REPARACIONES 60,000.-				TRCAO 3,000.-	TRCAO Y CABLEADO 60,000.-
2 C.M.T. PUERTO OBALDIA	REGULAR	30,000.-	1				TRCAO 1,000.-	RECONDICIONADO TOTAL 5,000.-				TRCAO 1,000.-	RECONDICIONADO TOTAL 5,000.-
3 HOSPITAL DE ALISANDI	BUENO	98,000.-	1	1	1	INCOMPLETO	TRCAO 1,100.-	REPARACIONES 40,000.-				TRCAO 1,100.-	REPARACIONES 40,000.-
4 S.C. VASCO DI MULATUPO	EXCELENTE	70,000.-	2	1	1	INCOMPLETO		REPARACIONES 50,000.-				TRCAO 1,000.-	REPARACIONES 50,000.-
5 S.C. TUBALA MULATUPO	NO HAY CENTRO							REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-
6 S.C. PUERTO OBALDIA								REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-
7 S.C. DE USTUPO ALISANDI	EXCELENTE		1		1	INCOMPLETO		REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-
8 S.C. PLAYUENICO	EN CONSTRUCCION	7,000.-	1			INCOMPLETO		REPARACIONES 10,000.-				TRCAO 1,000.-	REPARACIONES 10,000.-
9 S.C. TUPILE	EN CONSTRUCCION	15,000.-	1			INCOMPLETO		REPARACIONES 6,000.-				TRCAO 1,000.-	REPARACIONES 6,000.-
10 S.C. RIO AZUCAR	NO HAY CENTRO							REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-
11 S.C. TICATIKI HARGANA	REGULAR	18,000.-	1					REPARACIONES 10,000.-				TRCAO 1,000.-	REPARACIONES 10,000.-
12 S.C. RIO CIPRA NARGANA	NO HAY CENTRO							REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-
13 S.C. CAGATI SINGLUDU	NO HAY CENTRO							REPARACIONES 20,000.-				TRCAO 1,000.-	REPARACIONES 20,000.-

286,100.00

## Financing of the Health Sector

### Expense Budget of the Health Sector

The budget for expenditures of the Health Sector, in nominal terms, and including only the CSS, MOH and IDAAN and the Department of Collection, increased at an annual rate of 15.3% during the period 1970-1974, or from 83.6 M in 1970, to 147.9 M. in 1974.

Because of the economic semi-recession situation now prevailing in the Republic of Panama, and the impact produced by the inflation, due to the increase in the cost of living, it would be convenient to analyze the budget assigned to health from a realistic point of view.

It has been observed that in spite of the substantial nominal budget increase, the acquisition capacity decreased in 1974; in other words, the inflation and the recession have affected the acquisition capacity of the funds available to the health sector for providing health services. Nevertheless, there was a considerable increase in the delivery of these services. The modifications in the health indicators throughout these years clearly show the benefits obtained in the communities with respect to same.

It is expected that the budget for the health sector will be increased by 25% as a result of the health services provided by the CSS and the expansion of the population to be covered by said institution, as well as by contributions from the MOH and IDAAN and particularly, once the integration of the health sector takes place.

### Financing by the Ministry of Health

The Ministry of Health has an average participation of 16% in the

total GOP national budget during the 1970-1974 period. For this period the total GOP budget increased at a rhythm of 10.4 per year; the Ministry of Health increase was 8.8% per year. The relation of the Ministry of Health budget per inhabitant varied from \$13.37 in 1970 to \$21.73 for 1974. Although there is an increase per capita in the budget per inhabitants, this characteristic is only significant in Bocas del Toro, with a budget of \$46.44 per inhabitant.

The analysis of the budget distribution according to the expense is as follows:

DISBURSEMENTS ACCORDING TO EXPENSE (B/ MILLIONS)					
<u>Expense</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Personnel Services	12.0	15.1	17.8	19.3	20.6
Non-Personnel Services	0.5	0.6	0.7	0.7	0.6
General Expenses	4.1	4.5	5.4	5.4	5.6
Transferences	3.5	1.2	1.1	1.0	1.0
Other Financial Dis- bursements	0.0	0.1	0.1	0.1	0.1
TOTAL . . . . .	20.1	21.5	25.1	26.4	28.1

Three-fourths of the total outputs are assigned to personnel services. This line item for the period 1970-1974 increased by an annual rate of 14.5%. The breakdown of the personnel services for fixed salaries, representing 96.1%, is as follows:

Administration 36.4%, Environmental Health 9.6%, Maternal Child Health 24.2% and Adult Health 29.8%.

The second important expenditures are the general expenses, including food, fuel, materials and supplies, 92.5%; the highest amount assigned to the Health Sector.

The following chart shows an analysis of the distribution of outputs by the Ministry of Health, according to programs:

DISBURSEMENTS ACCORDING TO PROGRAM (B/ MILLIONS)					
<u>Program</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Administration	4.8	8.6	9.1	9.3	9.9
Environmental Health	1.9	1.6	2.0	2.5	2.5
Maternal/Child Health	5.6	4.6	5.5	6.0	6.3
Adult Health	7.8	7.3	8.5	8.6	9.3
TOTAL. . . . .	20.1	21.5	25.1	26.4	28.1

The characteristics regarding the distribution of the Expense Budget of the MOH by Provinces is shown below. The average increase of the nominal budget of the MOH was 11%, but upon closer examination of the chart, we find this with the exception of Panama and Colon, the rest of the provinces had a high increase according to the Government policy to relocate a greater amount of resources in the Interior and rural areas of the country.

Comparison of the Nominal and Real Expenses of the Ministry of Health  
By Province - Years 1970 and 1974

PROVINCE	1 9 7 0		1 9 7 4	
	Nominal	Real	Nominal	Real
TOTAL . . . . .	<u>13.98</u>	<u>11.95</u>	<u>18.52</u>	<u>12.13</u>
Bocas del Toro	2.67	2.28	4.90	3.21
Coclé	4.60	3.93	6.70	4.39
Colón	7.14	6.11	9.06	5.93
Chiriquí	5.61	4.80	9.19	6.02
Darién	6.74	5.77	10.74	7.03
Herrera	5.67	4.85	8.81	5.77
Los Santos	8.73	7.47	30.36	19.88
Panamá	26.43	22.61	30.25	19.81
Veraguas	3.30	2.82	5.91	3.87

The annual increase rates in the budget are as follows:

Total was 10.5%, Bocas del Toro increased to 20.0%; Coclé, 12.6%, Colón 8.9%.

The highest expenditure per inhabitant can be noted in Los Santos, at 30.36 and Panama at 30.25 per inhabitant. The remainder of the provinces have relations lower than the per capita of the Republic of Panamá that reach 18.52%.

A chart on the internal composition of the distribution of the budget of the Ministry of Health is shown, in order to point out how the relative participation has decreased in Panamá from 76.4% in 1970 to

69.9% in 1974.

Internal Structure of the Budget in the Province of Panama and its  
Relation with the Rest of the Provinces in the Republic

PROVINCE	1970	1974
TOTAL . . . . .	<u>100.0</u>	<u>100.0</u>
Bocas del Toro	0.0	3.1
Coclé	1.5	2.6
Colón	3.0	6.2
Chiriquí	3.7	9.5
Darién	0.0	0.2
Herrera	1.3	2.0
Los Santos	0.7	0.9
Panamá	72.5	73.5
Veraguas	1.0	2.0
Others Classified	16.3	-

It is important to note also that the expenditures and distribution at the provincial level, the Province of Panama has assigned 70% of the total budget and more than 60% of the total budget from the Ministry of Health in expenditures for personnel services.

This is one of the situations that must be modified by means of a change in the budget policy, and the integration of the health services.

The Children Hospital and Hospital José D. De Obaldía, operate under a patronage, together with the Ministry of Health.

Basis for Financing a Patronage

- I. It is part of the State
  - a) a grant assigned by the State under the national budget
  - b) contributions received from the Municipalities
  - c) contributions from the CSS for providing services to the population insured.
- II. Contributions from the Community
  - a) for the purchase of health services
  - b) for the payment of fines due to traffic violations
- III. Contributions from private enterprises and international organizations in money, materials and equipment.

The Board of Directors of the Patronage, together with the Ministry of Health, the Ministry of Planning and Economic Policy and the Contraloría are responsible for the administration. The Minister of Health or his representative presides the Board of Directors, the Ministry of Planning and Economic Policy allocates the resources, and the Contraloría controls the services provided. As a general rule, a Patronage has its own sources of incomes, budgeted per year.

It should be pointed out that percentage of increase in the incomes is around 60% for the 1970-1974 period, and the percentage of increase of the expenditures, 56% for the same period. The Patronage grows at a much faster pace than the rest of the MOH facilities.

Financing of the Caja de Seguro Social (CSS)

From the income and expenditures aspects, and the social security, the CSS is the main institution that provides health services. The 1970-1974 period is characterized for having an annual average increase of 13.7% of its income budget, as a result of the policy to increase the benefits in the insured sector under the Social Security Program, as well as the incorporation of the marginated groups in the agricultural field, such as asentamientos, to the social health programs, including also the initial portion of the workmen compensation plan. The services provided by the CSS deal particularly with administration, illness, maternity, disability, old age and death; workmen compensation and investments. The latter is not considered to be a social security program but it is looked upon as an intermediate or income generating program to be used as a source for obtaining funds destined to cover the expenses or costs for human resources and/or other outputs.

According to the budget classification, a large amount of the quotas paid by the insured are from private employees, the central government and decentralized institutions. The non-official activity accounts for financing more than 50% of the income required by the CSS. As an average, the employer pays for 57% of the fees, and the employee 43%. When comparing the relative expenses produced by the social security program, with the fees paid by the employees, this relations tends to decrease, that is to say, the expenses for the delivery of services for the employees increase at a faster rate than the incomes contributed

through fees. The Expenditure or Output Budget of the CSS showed an average rate of increase per year of 16.4% for the 1970-1974 period. While the population covered considering those insured and their dependents, increased for the same period at a rate of 13.4%. The budget relationship between the population covered shows the following variations:

In 1960, the nominal budget was 148.10, in 1974, 164.08. Nevertheless, the real budget in 1970, when applying the deflation factor, was 126.07 and increased to 107.05, in 1974. The dependant population receiving benefits from the CSS has grown during the 1970-1974 period at an average of 18.2%, and presently the number is much higher than the paying fees.

The following chart shows the movement in the budget of expenditures as related to the expenses, compared to 1972-1974.

EXPENSE	1972	1974
TOTAL. . . . .	<u>100.0</u>	<u>100.0</u>
Personnel Services	22.1	28.3
Non-Personnel Services	1.8	2.0
General Expenses	11.1	12.1
Transferences	35.1	40.3
Other Financial Expenses	1.8	3.3
Public Debt	-	2.8
Investments	14.4	11.2
Other Expenses	13.7	-

In relation to the Expenditure Budget of the principal programs of the CSS, administration, illness and maternity, disability, old age and death, workmen compensation and investments, the following chart shows the expenditures per program over the insured population and all its components, and represent a significant increase. This is due to the increase in the demands made by the population.

PROGRAM	(In B/ MILLIONS)	
	1970	1974
TOTAL. . . . .	<u>148.09</u>	<u>161.93</u>
Administration	9.77	9.97
Illness and Maternity	64.27	71.03
Disability, Old Age, Death	44.67	43.47
Compensation Plan (Workmen)	-	12.89
Investments in Facilities	4.10	24.56

The administration program deals with the functions of this process within the institution.

The Illness and Maternity Program provide a series of services, and half of the expenses for 1974 under this line item correspond to fixed salaries.

The disability, old age, and death program is of special importance. In 1972, the output was 21.2 M, in 1973, 22.5 M. and in 1974, 23.2.

The workmen compensation program has as its fundamental basis, the prevention of accidents on the job, the improvement of the services to prevent the illness resulting from same.

The Investment Program increased in 1972; \$15.8 M. were used, in 1973, \$14 M. and \$13.4 in 1974. It is important to note the rate of increase of expenditures per province.

PROVINCE	RATE OF GROWTH 1970 - 1974	Rate of Annual Growth
Bocas del Toro		+ of 200%
Coclé		33%
Colón		39%
Chiriquí		74%
Darién		+ of 100%
Herrera		40%
Los Santos		23%
Panamá		168%
Veraguas		36%

In relation to the internal structure or participation of the expenditure designated to each province with regards to the total, it is evident that the Province of Panama holds more than 70% of said budget.

PROVINCE	YEARS	
	1970	1974
TOTAL. . . . .	<u>100.0</u>	<u>100.0</u>
Bocas del Toro	0.6	0.8
Coclé	2.7	2.9
Colón	4.8	4.5
Chiriquí	6.6	8.0
Darién	0.8	0.9
Herrera	2.1	2.3
Los Santos	3.2	7.4
Panamá	76.4	69.6
Veraguas	2.5	3.2
San Blas Islands	0.3	0.4

It is expected that the integration program in a sole system of health services will rationalize this type of expenditure.

Financing for the National Institute of Aqueducts and Sewerage (IDAAN)

The IDAAN is an autonomous entity of the State created by Decree Law #98 of December 29, 1961. In Article 2 of the Constitutive Law of the IDAAN are contained the objectives of the creation of this institution:

The IDAAN will have all the functions related to the planning, investigation, design, administration, construction, inspection, operation, maintenance, and exploitation of the systems of aqueducts and sewerages of the Republic of Panama. It does not have any distributive function

as an explicit objective, therefore it is supposed that the endowment of the products of the IDAAN should be made at such prices as to imply a normal, social income for the investment. The idea is that the flow of benefits should be such that they imply a normal income for the investment. This aids administrative efficiency and the use of resources in general, because, were it not so, the normal income would imply a net social burden, in other words, prices higher than what would be socially justified. We quote between the productive and distributive indicators:

1. Water consumption per capita, distribution of consumption of regional water, population benefited by the sewerages, distribution of the regional financial burden and effective costs of regional production, net global and regional economic subsidy. The costs of the investments of the IDAAN are paid by means of an assessment of values. Not only the capitalized costs during the period of construction, but all those costs that have to do with the administrative portion, maintenance improvements, etc., of the fixed assets. The sewage system when charged by values is similar to the case of the water. The structure of the existing price in the IDAAN that justifies a certain system should be such that would allow for a normal nominal income. The best at a short term period might well be to only recuperate the inevitable costs, those called variable. That is, it may be efficient enough if it is operating with losses in the short term in the price, but of course not if this should become permanent. The problem that arises here is distributive. To be

more precise, what we can say is that the fact that the IDAAN is earning less than is normal, this does not necessarily imply that after the adjustment for inefficiency, there exists a bad price policy.

### Objectives

In regards to the financing of the health sector, the objective is to rationalize the cost of the services trying to achieve the maximum of the benefits. The strategy for this purpose rests in the integration of the resources and the financing of the health sector in a joint manner, in order to avoid the duplication of services and to obtain the maximum of benefits. The program is based on the integration of the administrative and accounting systems of both institutions. The manner of evaluating this system will depend on the results that will be obtained in the integrated provinces in relation to the decrease in cost/benefit and in relation to the cost of the different services.

## PLANNING ANALYSES OF THE CHARACTERISTICS OF PLANNING

### INTRODUCTION

For many years, the Republic of Panama has made significant efforts in the field of planning, by formulating health policies with general as well as well-defined objectives for setting specific goals, with the purpose of solving the community health problems. The country participates in international planning activities, such as designing its own policies within the contextures set forth in the Charters of Punta del Este, in 1961, and Santiago, Chile, 1972, which established the goals and specific strategies to be carried out for each respective decennial for improving the health level in the Americas. The Decennial Plans represent methods for accelerating the socio-economic development of the countries.

The Republic of Panama has used the facilities provided by the Pan American Health Planning Center, in Chile to train a group of multidisciplinary professionals in the sector in basic and specialized methodology in Health Planning, as well as to develop three basic courses in planning and two specialized courses on the same subject, at a national level. In both cases, OPS/OMS and also the Pan American Center for Health Planning have provided technical assistance. This type of training has made available adequately trained personnel in the techniques of planning and preparation of norms for providing health services. By utilizing these techniques, the sector can identify the areas of major problems, and develop alternate plans to solve a great portion of these. The availability of a system, methods, and techniques, developed accord-

ing to their own characteristics, allowed for the solution of the health problems, by means of a better utilization of the resources and adequate tools, and relied mainly on a modified program schematic of CENDES/OPS, which permitted the establishment of health policies and appropriate planning areas.<sup>1/</sup>

It was necessary for the two main units of Health Planning in the public subsector (Ministry of Health and Social Security) to take this decision, due to the difficulties encountered in obtaining useful information related to: efficiency, cost coverages, useful levels of protection, norms, financial aspects, human resources, etc., and the corresponding program services, training and investments in the different planning areas.

During the first "Seminar on Health Planning for the Central American Isthmus", these difficulties were pointed out, and they clearly showed that:

"Progress has been achieved in some formal aspects and that the operation and implementation of the process of planning health services has not had the same dynamism", therefore, the analysis made was not able to detect that some obstacles worthy of being mentioned are hampering the normal development proves, as follows: "the multiplicity and lack of coordination of the institutions within the health sector"

<sup>1/</sup> See corresponding charts in Annex, (Policies and program areas, limitation of the rural and activity areas in the Health Sector of the Republic of Panama. List of the activities considered to be related specifically to the Health Sector.

"The inadequacy of the support of the administrative system"

"The deficiency in the information of the health statistics system, financial aspects and human resources, etc., to properly support the required process".

Nevertheless, the efforts contributed in the different aspects, made it possible that in Panama in 1970-1974, the planning process, with its main components of formulating policies and strategies, as well as integral planning, has remained active and under constant surveillance, evaluation and updated. What is important is that the health planning process has remained, as well as its interrelation to the integral planning process of the country. In this regard, special mention should be made of the fact that as of 1970, the inputs carried out by the public health subsector, particularly by the MOH, through its Organization and Education of the Community Program, stated in Decree No. 401, of December 29, 1970, has tried to respond, through quantitative measures, not yet clearly defined, to the often asked question "Does the system for Health Planning take into consideration the basic aspects related to the participation of the communities, not in a limited traditional and classic fashion, as in the past, but instead with the dynamism and effectiveness as presently occurs? In other words, with the awareness of what it means for such system to establish indicators that will quantify each one of the characteristics at the health levels of the communities; are there elements of judgment that will help measure and quantify the efforts made by the community to resolve their own health problems? The answers are still under investigation and in the future, it will be the task of the

Department of Education and Investigation of the Ministry of Health, under which the Program of Organization and Education of the community, operates together with the Departments of Planning of the four main agencies, to design the corresponding quantifiable evaluation forms. In any case, if planning is taken as a mere technical act, the deficiencies found therein could be solved by improving the working tools. Nonetheless, it is easy to find that when difficulties arise, these reach a lower level, and the causes are more complicated. This has been the case in Panama, as far as how the situation stands in health planning process, in the years 1970-1974. The fundamental reason is within the planning process nature in itself. "Planning means essentially the selection among alternatives, and the utilization of the limited resources in such a way, that the specific objectives achieved are based on an assessment that covers all the identifiable relevant factors.

The outstanding factors, include among others, the social and political, as well as the economic structures of the countries implementing the plan."

It is important to point out that during the period 1970-1974, particularly from 1972 on, an adequate degree of coherence have been found in the health policies and the policies related to the development of the country, and the health conditions. By this same token, there has been an adequate amount of coherence in the plans and programs of the health policies and the strategies for their implementation. At this point, it would be advisable to review the document on "The Decen-

nial Health Plan for the Americas and the health goals of the Republic of Panama" of 1972, wherein these aspects are clearly indicated. On the other hand, in order to execute the programs, the budgets prepared during this period, responded with some degree of coherence, although not at all perfect, with the plans and programs approved. Although the responsibility of implementing the budget and the relationship to the budgets prepared were very good (+ than 90%). Added to this, was a good amount of adequacy and coherence in the administrative structures, the technical norms and the administrative dispositions related to the plans and programs, and the goals and activities determined in the budgets.<sup>1/</sup> Nonetheless, in the annual evaluations particularly at the ministry level, it could be ascertained, in general terms, the degree of attaining the goals and carrying out the activities was regular (values a little less than 50% to 75%). The explanations for this are varied. Although the relationship between the coverage and the volumes of production reached, and the population groups, geographical areas, etc., considered to be priorities, were taken into consideration.

#### Health Delivery System

Since 1961-1962, the Ministry of Health, then the Ministry of Labor, Social Welfare and Public Health, began to practice the concept of integral health, by eliminating the old structure of "preventive medicine" and "curative medicine". The activities planned were implemented in the three sanitary regions and the medical-sanitary areas belonging to

<sup>1/</sup> See corresponding chart on activities in Annex

each of these, according to their creation through the technical and administrative orders 12-13-14-15, prepared by the General Health Administration in February of 1962. Up until 1974, these activities were developed within an organization formed by three specific levels; Ministry, General Health Administration, with its normative services, and the Health Regions, with local services. On the other hand, the implementation of the activities planned, were carried out in two different ways:<sup>1/</sup> the ones carried out by the so-called Central Command Programs, such as, the National Malaria Eradication services; the National Anti-Tuberculosis Campaign, the Rural Aqueducts Program and the Water Well Drilling Department of Sanitary Engineering, and the activities developed at the local level by the Health Institution of the Medical-Sanitary areas, known as "horizontal types program". Actually, as of 1974, it was decided to change this organization of three regions, to a provincial organization, when all the activities planned are executed.

Of the three agencies, namely, Ministry of Health, IDAAN and Caja de Seguro Social, the Ministry of Health utilizes the two techniques for prevention of the reform of its vertical as well as horizontal program; meanwhile the Caja de Seguro Social developed its activities with a significant percentage through the technique of repairs, and IDAAN, logically, 100% through means of a preventive technique by supplying potable water and construction of sewages, and the waste in the metropolitan area.

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<sup>1/</sup> See corresponding chart on activities in Annex

The Health delivery system has tried to include all the areas of the country and for the final activities in the different programs according to the health policy formulated, and approved, by means of a regionalization and sectorization system, carried out in the four areas requiring health services. This programs lends particular attention to the village grouped in the rural areas and the marginated areas in the urban zones. Also, through the water mobile units program, put into effect in early 1972, the health services and extended to areas of difficult access, through planned medical-sanitary trips.

The development of the health delivery system operates in the Ministry of Health, at three levels; (a) at the national level, through the Department of Health Planning and the Program Department; (b) at the regional level, by the Provincial Health Administration; (c) at the local level, by the different disciplines pertaining to the health areas and institutions.

These program goals are a conscious effort of the need to cover the volume of the demand, enhance the coverage and define the outputs, but they are somewhat apart from the budgetary counterpart. This line of work should be intensified until the operation levels utilize these assessments through a functional plan, because what has been calculated and designed until now, have not included this characteristic. The implementation of what has been planned is carried out in the institution at the local levels. The system used for the planning has been varied and with different points of view beginning with the tendencies of the demands, by a predetermined period of time, and/or the use of resources coming from

different sources. In 1973 and 1974, plans were made for the integration of the Province of Colon, Bocas del Toro and Herrera, Los Santos, of the Azuero Region, with the participation of the national and local levels, with the technical assistance of OPS/OMS, following somewhat closely, but modified CENDES/OPS method. In both provinces there are personnel resources in health planning, which have participated in collaborating with the respective plans. The Ministry of Health planning is related with the achievement of yearly goals for different final activities determined by health institutions, medical-sanitary area, and provincial health regions. Some of these final activities correspond to specific programs approved within the established health policy. Fundamentally, these refer to: medical consultations, outputs, dental services, vaccinations, various types of inspections, domiciliary visits, insecticide fumigation of houses, epidemiologic evaluations, water supplies, waste disposal, insect, rats and arthropods control; community organization, food supplies, community garden, poultry and fish projects (within the Programs of Administration, Maternal Child Care, Adult Health and Environmental Health).

The specific planning in the field of nutrition has been directed particularly towards solving the problem in four specific areas: (1) low protein and calories malnutrition; (2) nutritional anemias in pregnant women; (3) endemic goitre; and (4) hypo-vitaminosis A. To this effect, it has been projected as a goal for 1975-1976, the establishment of a national policy for food and nutrition biologically oriented. On the

other hand, since 1974, a complementary nutrition program has been established, which attempts to reach the more vulnerable groups. This program to date is insufficient, because it only corresponds to one province (Veraguas). Nevertheless, it is being planned to obtain more resources to expand the program towards other areas. The resources of skilled personnel available to cope with what has been planned in the field of nutrition, are located in three levels of action: (central, intermedial and local).

In the case of the Social Security, the health delivery system particularly refers to the medical consultation activities, dental services, hospitalization, home visitations and vaccination; within the Health, Maternity and Workmen Compensation Programs, while in the case of IDAAN, the final activities are related to the water supply, waste disposal and trash collection.

IDAAN has gone ahead to improve its operational capacity through method and procedures that will permit them to strengthen and become more technical in the organic structure, its resources and productivity. For this they have under contract consultants from OPS/OMB, who are presently active. Also, they have enforced the policy to investigate pre-investment studies and the compilation of the necessary information to obtain external and/or internal financial assistance for implementing important projects. Also within the institutional reform programs carried out by IDAAN with the technical assistance from OPS/OMS, they are contemplating the improvement of the administrative process required to efficiently

carry out their operation and development program plans.

Up to the present time, IDAAN has followed international norms (O.M.S.) for the control of the potable water quality, but it intends to develop a program to set their own norms. Also by means of new techniques, it promotes the community self-help for providing water supply to the rural areas. They have succeeded in establishing the BID, IDAAN, Community Financial Plan, with the programs developed with the aid of a loan from BID, whereby the community contributes the non-skilled labor, some local materials (sand, gravel, etc.) and some cash, which is under control by regulations. On the other hand, the institute includes among its action policies, preventive planning and the training of personnel in the potable water systems and sewage, in the routine activities to cope with situations caused by emergencies or natural disasters. In the last five years, IDAAN has been in charge of the waste collection in the metropolitan area.

#### Programming of Human Resources

The agencies comprising the sector tried to develop their final activities during 1970-1974, without the required amount of personnel on hand. This effort was carried to such an extent, that the Ministry of Health tried to incorporate into its technical team, resources from the communities, to implement its four basic programs. This is one of the few physical and human resources available to the agencies in the sector to carry out their programs, and is under the process of being rationalized through the system of sectorization, and the progressive imple-

mentation of the community health delivery system, which involves an increasing participation of the populace in the health activities, of which they are part of.<sup>1/</sup>

During the Second Seminar on Health Planning, September/October, 1973, we find that in 1971:

- a) There is an increased concentration in the capital city of the professional health resources.
- b) The rest of the country, with over 1.0 million inhabitants has only 35.6% doctors, 29.7% nurses, and 37% dentists, this further shows the shortage of these professionals outside the metropolitan area.
- c) There is a need to train health professionals in accordance with their needs, as well as to redistribute the existing resources following the policy developed.

Notwithstanding these parts, as of 1975, necessary steps are underway to organize an appropriate training program for these resources. Consequently, the Ministry of Health has incorporated within its organization, the Department of Education and Investigation, which together with the respective specialized departments, will have to determine the number, type, distribution, and utilization of all the personnel necessary to cope with the activities planned for this year.

On the other hand, the Faculty of Medicine has just created the Medical Education Unit, in order to be able, at a national level, to coordi-

<sup>1/</sup> Article No. 108 of the National Constitution

nate and plan the pre and post graduate education of the doctors in the country. This program will be carried out jointly with the Ministry of Health and the Social Security (CSS). It is important to point out that for the past three years, the formation and better utilization of the medium and basic personnel has been under consideration as a change agent in the health delivery systems. With this in mind, the Ministry of Health, in coordination with other countries in the hemisphere, are seriously considering this strategy as being fundamental in solving the shortage of technical personnel, especially in the rural areas of the country.

The recommendation to use this type of personnel was established at the Seminar on Human Resources, held in Medellín, sponsored by FEPAFEM (Panamerican Federation of Schools of Medicine), and the International Center for Research and Development (CIID) of Canada, in January 1975, with the participation of a large number of Latin American countries.

Planning for the formation of medical resources is held at the School of Medicine, of the University of Panama. There are many doctors that have graduated abroad. The National University graduates odontologists, pharmacists, and nurses, as well as another type of personnel which at some given time will be working in the sector. In all these cases, the planning is not done in completely coordination with the agencies utilizing the different services within the sector, neither are the number, characteristics or requirements taken into consideration for their formation and/or curriculae,<sup>1/</sup> except in the cases of "specialized courses

1/ See chart No. 4 of Annex

for programming". Since 1972, there has been a community nursing school in the Province of Los Santos, with a training program that tries to reach the real need for this type of personnel to be used fundamentally in the rural areas. It has been in operation for the past two years.

The program for the remainder of the other disciplines and personnel is carried out independently, not only by each agency in the sector, but rather through decisions, many times apart from each other.

#### Health Institutions and Facilities

The planning of the health institutions and facilities has been carried out in a very independent manner, by either one or the other agency in the Sector (MOH, CSS). Nonetheless, in the last two years (1973 and 1974) there have been significant progress in the programming by both agencies, due to the responsibility they now share under Article 107 of the Constitution of 1972, which calls for the "integration of the resources of the institutions that form the sector". In this joint planning, the Ministry of Planning and Economic Policy has played an important part by ascertaining that both agencies utilize their resources in a rational manner.

At present, there is a Committee, at the national level of the Ministry of Health and the Social Security, and together with the Ministry of Planning and Economic Policy (MPPE), is completing an assessment to request an external loan to improve the physical resources. This study should be completed by the second semester of 1975 and the improvement plan should begin by 1976.

### Financial Programming

If the IDAAN investments were added to the health budget, as well as those from the CSS, the percentage assigned to health would be over 30% of the national budget. From 1970 to 1974, this amount has increased steadily.

The Ministry receives 10% of the national budget, also incomes of about 5% from the most important municipalities, and considerable contributions from the communities through the health committees, which in turn also share with the technical equipment of the Ministry, the responsibility, administration, supervision and evaluation of the programs, as well as the utilization of the Administration Funds of each hospital.

The budgetary contribution by the CSS from the special insurance fees paid by the employees of 6.75% of their gross salary, and 9.5% contributed by the employers according to the salaries of the employees. Besides the investments, the Caja assigns to Health approximately 25% per year of its total income. The IDAAN budget comes from the national budget, and the contributions made by the users. Health also has resources from international agencies, through loans specifically obtained to strengthen the investments programs.

On the other hand, the CSS has contributed in a dynamic manner towards this rationalization of resources, by further contributing funds in the form of loans, at long term and low interest rates to the MOH, for the renovation of an institution with prestige such as is the Hospital Santo Tomas.

As of 1973, in accordance with the legal rights bestowed to them, the Provincial Coordinating Councils in the entire country have participated in the draft projects for investments corresponding to each municipality and district in each of the nine provinces.

The result of the action, in some cases, has been a request for construction, remodeling, or repairing institutions, which is not precisely the best solution, according to technical recommendations. Nevertheless, through direct orders received from the higher levels, in the sectors and the Ministry of Planning and Economic Policy, it has been possible to rationalize and adequately prepare the provincial plans for investments in health, at short to medium terms, based on the criteria of priorities.

BUDGET PREPARATION:

The operational budget for the three agencies, MOH, CSS and IDAAN, is prepared to contribute annually with resources for financing personnel services and operational expenses of each agency, on a short-term basis. Its preparation complies with the legal obligations to request funds in behalf of the MOH, to the Central Government, through the MPPE; and the CSS and IDAAN should approve this request through their Board of Directors. The annual budgets for incomes and disbursements is also approved in the same manner.

In the case of the MOH and IDAAN, there is some relationship between the planning and the budget, particularly to the latter. This relationship is not as close with the CSS.

Presently, the MOH, as well as the CSS, prepare their budgets based on programming, but they are handled according to the type of expense incurred.

The budget base on a program permits allocations of the financial resources to be made in a reasonable manner, and at the same time, turns the budget into an instrument of great efficiency for the implementation of long-term programs. The Organic Guidelines of the MOH, states this concept very clearly in Article 69, as follows:

"The operational budgets are the financial expression of the working plans and they should include the distribution of the allocations and sub-allocations, the different regular line items, and contributions, as well as the expenses shown by the totals calculated for investment

in the activities planned for the year. The operational budget or program budget must include the detailed specifications of the activities planned, their volume and cost, the total amounts calculated and their equivalent."

This system of preparing a budget is relatively different in the three agencies. The MOH for the past five years, has been using the method of appointing a Committee at the national level, made up of personnel from the Budget Department of Health Planning, to obtain information at the local levels, and prepares draft budget projects for each year. These are then analyzed and approved in final by a decision at the Ministry level. This document is then submitted to the Executive for consideration, after it has been analyzed by the Ministry of Planning and Economic Policy.

The figure requested in the budget must be close to the amount shown as the budget ceiling for that year by the MPEP. During the last years, there has been a relative increase in the funds approved through this budgetary produce.

It is important to point out that since 1974, when the integration system between the MOH and CSS was put into effect, in three provinces (Colon, Bocas del Toro and Veraguas), and later on in two others (Los Santos and Herrera), the preparation of the budget has improved because of the coordination between these two agencies.

Each year the technique becomes more polished and the purpose is to prepare a single provincial budget with funds providing from both

sources. This paves the way to what is textually declared in Article 107 of the Constitution: "That the resources the State invests in the Health Sector would be of greater impact if they were utilized in a reasonable manner", since this is the substance and basis of the integration system. This procedure has made it possible for the past two years to disregard the hypothesis that all health problems can be solved by increasing the budgetary activities, as well as the personnel. A serious analysis from a multidisciplinary point of view of all the provinces, the resources available, and their utilization, have made it possible to find the errors in coordinating and integrating, situations showing a lack of common sense, internal contradictions, and these types of problems in most cases, cannot be overcome by increasing the funds. On the other hand, the provincial directors of health, together with members of the community, and members of the Municipal Health committees, participate in the preparation of the budget each year, if the respective contributions of both sources are included.

Intra and Intersectorial Coordination:

Within its formal organization, the intra-sectorial coordination has been depending mostly on the legal support permitted by certain laws, such as Decree 331 of 1966, which calls for a National Committee for Health Planning; Decree No. 1, of 1969, establishing the Ministry of Health, the Organic Bylaws of the MOH, the Organic Law for organizing the CSS and IDAAN. The Board of Directors of these two agencies is presided by the Ministry of Health.

It is important to point out that during the last four years the activities of the National Committee for Health Planning have been at a standstill, and this has caused separation among the institutions in the sector; it cannot be assured whether this is due to cause or effect. It seems they were not organized at the same time, nor under the same conditions that establish and legalize the planning procedures.

As of 1973, by decision of the Chief of Government, the process of integration took place between the two main agencies that offer medical services, that is, the MOH, and the CSS; this in turn further accelerated not only the concept of coordination, but also the integration process.

The integration of these two agencies has also been responsible for improving the relations with the MPEP, particularly in the field of investments. By the same token, in one of the integrated provinces, namely Colon, since 1973, it became possible for these two agencies to also work with the School of Medicine of the National University and with FEPAFEM and A.I.D. to jointly develop projects for training and delivery of services. It is expected that in the future, the same coordinated and integrated system will work in the other provinces. On the other hand, in order to ascertain the necessary planning and implementation of the Integrated health services at a national level, the organism in charge of this responsibility is presently being organized by high level professionals from the CSS and the MOH, "National Committee for the Integration of Health Services (CONAISA)."

This unit, besides determining in a professional manner the policies and strategies necessary to produce the changes that are inevitable for

realizing the objectives of the Integration in the Health Sector, will also have other specific duties such as, technical advisors in matters of planning and programming; preparing projects for the norms and regulations pertaining to the administration; study and recommend solutions to the financial problems, make recommendations to incorporate and organize the personnel from the integrated systems, participate in the preparation of draft projects for laws and rules related to the implementation process, etc. At the present time, the Committee is in the process of organizing to work more efficiently.

However, in regard to this, it must be kept in mind that the technicians from the MOH as well as the CSS, are working together to make sure results are for the benefit of the communities. These projects are carried out at the national level and through the health delivery system in the institutions. As an example, we can mention the different activities in which they are engaged together such as, statistics and filing systems, logistics, planning and design of buildings, just to mention some of the least significant.

It is also important to note that since 1974, the Ministries of Agriculture and Education, the National University and the Ministry of Planning and Economic Policy are working together with the representatives of the Municipalities of the Province of Veraguas in a Nutrition Program, which is divided into two phases: Food Supplies and Food Production, to solve the serious problem of malnutrition in the rural population of this province. It is expected that this same program will be implemented in other provinces with similar nutrition problems.

The MOH keeps a permanent intra-sectorial coordination with IDAAN. This allows both agencies to provide adequate services for providing potable water, waste disposal, trash collection and other environmental health activities, in a well-organized manner and adequately planned to cover short, medium, and long term projects.

Since 1974, projects related to Integrated Rural Health, are elaborated and well coordinated with all the other sectors and these are financed through funds provided by BID and A.I.D. This refers to a five-year plan for the period covering 1976-1980.

The first three projects refer to the areas of Capira, Province of Panama, District of Renacimiento, Province of Chiriqui, and Azuero in the Central Provinces. Also, they are presently working on projects for the four following areas: San Blas, Soná, Cativá, Tebario and Barú.

The present plan is an integral part of the "Rural Integrated Plan for Development", which coordinates and channels the actions of the two main agencies in the public sector that are carrying out programs to increase the levels of life of the marginated populace that resides in the rural areas. The plan consists of the orderly development of activities for the support, protection and recuperation of the population residing in these districts.

Narrative Summary of the Health Planning Process in Panama. 1970-1974

During the preparation, implementation, supervision and evaluation of the sub-sector, it may be considered that the period covered from 1970-1974, certain systems, methods, procedures, and techniques were classified as "excellent" and "regular", and put into practice accordingly. Nevertheless, it is important to state that this happened with different values in the different programs, and in different periods of time. On the other hand, this was not the case in the private subsector, according to the limited information available. The places where the methods and techniques have been applied, have been in accordance to the services, training and investments, even though not completely taken into consideration during the different years by the agencies. With respect to the determined system, the process rested basically upon the limitations established by the agencies; MOH and CSS made their own modifications and adaptations; while IDAAN and the University of Panama did not, in any significant way, utilize this methodology. (1)

Regarding the general characteristics of the units of Planning, we can point out that in all the agencies of the sector, these have legal support, and the Department of Planning and Economic Policy is the only one that is part of a national planning system. Therefore, those corresponding to the MOH and the MPEP have always depended on the

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(1) See Chart No. 1 in Annex

decision of a higher administrative technique.

On the other hand, regarding its relationship to the institutions of the sector, the MPEP has certain authority over some of the institutions in the sector, without hampering the autonomy of each of these. It can be said that in regard to the organizing units that have been part of same, the ones particularly concerned are the Department of Statistics, Budget, Organization and Methods, and in few instances, others not directly related to programming, projects nor research, but in one way or the other, have participated in this process (1).

The personnel employed by these units has been varied, some of which were "formally trained" in regular courses of at least 12 weeks, in health planning, program development, or similar, and this made them available to perform duties in planning techniques. Some of them have worked with exclusive dedication, while others just partially.

This has resulted that in two agencies, IDAAN and the School of Medicine, the tasks were performed exclusively by employees of the units, and in the other three, some jobs are done with the participation of other departments within the institution. In order to fulfill all this work, in a great majority of cases, each unit receives to a great extent, only information not too useful, and it has been necessary to use same according to the needs of the process.

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(1) See Chart No. 2 in Annex

With respect to the tasks completed by the units of Planning in the public subsector during the 1970-74 period (1), it can be assured that these were determined by the levels of political decisions of the institutions and of the sector, approved, and to a great extent, implemented or about to be implemented. These facts also remained during the preparation of the investment policy, program and services, and the preparation of the programs and projects for investment. Although while preparing the budgets, in the case of the MOH, the performance was dictated by the National Planning System, and in the case of IDAAN and CSS, at the level of an administration political decision of said institutions.

In all the agencies, through their own initiatives, each unit had special assessments made, some of which are still in process, and others were implemented. This also is the case in the fields of promotion of the process, and plans, as well as in research and specific training.

Finally, the evaluation of the plans during this period, remained in the process of being implemented, and were particularly indicative of the levels of political decisions of the institutions or within the sector. These were partial evaluations and belonged basically to the activities of the Maternal/Child Care, and the Malaria Eradication Program. This does not imply that evaluations were made yearly of the programs.

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(1) See Chart No. 3, in Annex

Elements to be Considered in the Process Dynamics

If we were to analyze the relevant or important elements in the dynamics of the process of Health Planning, during the period under consideration: 1970-74 (1), we can point out that there has been an adequate degree of consistency between the Health Policy prepared, together with the strategic measures for the enforcement of this policy through appropriate plans and programs, with general and specific objectives of the Development Policy related to the sector. At the same time, there was a great deal of consistency, although not altogether perfect, among the Budgets for programs, services and investments, for solid Plans and Programs. On the other hand, a large amount (more than 90%) of the budget prepared annually in each agency was used. This action helped to take the necessary steps for the gradual acquisition of more funds to improve and implement the volume of production, according to the degree of relationship, of a great majority of the final activities of all the plans and programs, for these to reach a larger portion of the population by protecting and improving the deteriorated health conditions. At the same time, during this period, numerous technical norms were produced, adapted and established, in all the public sector in each of the agencies in the health subsector, as well as some administrative dispositions that allowed, according to their degree of adaptation, to comply with all what had been planned.

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(1) See Chart No. 6, in Annex

Regarding the preparation of these norms, Technical as well as Administrative during the period 1970-73, efforts were made to prepare them jointly among the different agencies, but this was not successful.

Therefore the Programs had their own norms in each institution and these were complied with to some extent, by the local levels. As of 1973, the enforcement of Resolution No. 1077, of June 5, of the same year, which calls for the creation of the National Committee for Integral Health Delivery Services, further strengthened this coordination and resulted in the combined preparation of norms. In this respect, there was a meaningful participation of the specialists from the Maternal/Child Care Program. It has been very difficult to obtain the participation and coordination of the different specialists pertaining to Adult Health Program, due mainly to the complicated and large amount of specialists involved.

Nevertheless, good results were obtained on the review and actualization of the epidemiology norms, which is under the direction of an Epidemiology Committee, also involved in other responsibilities.

In the field of Environmental Health, the same revision was made by each of the specialists that are part of same. Nevertheless, due to various problems, it has not been possible to print a manual, not even a summary of all these norms; this is making it difficult to disclose its operation to the agencies at the local levels. It is expected that this problem will be solved in a short time and in this way it will be possible to comply with one of the most important requisites of the process of planning, such as the establishment and operation of the

appropriate technical and administrative norms.

The public subsector, by utilizing a system somewhat defined in many aspects, has been able to achieve during the 1970-74 period, the preparation of its Health Plan, and as a result, the Economic and Social Development Plan for the same period. All this included into well-designed policies. This situation has not been the same in the private subsector; which does not permit having a national Health Plan readily available with a clear concept of its contents. (1)

Consequently, the contents of the Health Plan in the public subsector has segregated to the administrative regions, showing by goals of population coverage, and the production of services, where the investment plans have constituted a group of projects with some degree of evaluation and analyzes or proceeds of general studies, and/or sectorial pre-investment. There has also been an adaptation plan of this administrative organization related to isolated measures oriented toward problems of procedure and/or institutional structures of the sector. On the other hand, we have already referred to the estimated deficit of human resources according to arbitrary guidelines and training of some elements. Meanwhile the investigation plan referred to programs or isolated activities for solving some sectorial or institutional aspects considered as problems. The evaluation planned has been oriented towards the compliance of goals and activities.

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(1) See corresponding chart in Annex.

### Production of Services

The part regarding production of services is based on the programs carried out in the health sector.

The Ministry of Health: The analysis shown refers to the principal characteristics of service benefits on the part of the Ministry of Health. During this year (1974) the Ministry of Health granted 2,027,229 appointments among physicians, odontologists, nurses psychologists, social workers and others. Of these appointments, 1,392,624 were for morbidity, that is more, than 60% of these appointment (779,279) were for persons over 15 years old; 13,626 gave no information regarding age and the rest pertained to the Maternal/Child Health program.

With regards to appointments for pregnant women or post-partum undertaken by the MOH, these have had an increase of 12% from 1972, to 1974, emphasizing the fact that during 1972, 79,742 appointment were effected, while during 1974, 88,467 were effected, which represents an increase of almost 10,000 appointments.

As concerns the control of well-babies, during 1974, 105,333 appointments were granted to 45,863 persons, which gives us a concentration of more than two appointments per person. Nursing personnel effected 47,735 domiciliary visits in the province in different sanitary areas. The majority of these visits (36,745) took place in the Province of Panama. Within the Maternal/Child Health program, according to registrations, in the Family Planning Program, the active females

triplicated in the period comprised between 1970 and 1974. Of the 334 registered in 1970, 10,001 were registered in 1974. Of the active females in the program, more than 75% are located in the urban areas of the principal populated centers. Family Planning in this country has a total of 56,398 acceptors. This represents 16% of the susceptible population or in fertile age. It is expected that this program will increase in the rural areas.

With regard to the Cancer Prevention Program, 27,526 cancer tests were effected, but it is considered that this is still under the maximum required for this program.

The rate of professional attention during childbirth calculated per 10,000 inhabitants, represents an increase of 12%, that is, from a rate of 65.0 for 1970, to a rate of 72.6, in 1974.

One of the most recently developed activities by the Ministry, is the one referring to Applied Nutrition, which integrates the food production program into the community. This activity includes education advice and investigation. The services related to complementary nutrition at the end of 1974, had benefited 4,000 families distributed approximately among 200 rural communities of about 20,000 inhabitants. In the near future, this program will be channeled towards those regions or districts of major poverty in this country, most prevalent to children under 6 years of age, and to groups of undernourished adults.

In the Mental Health Program, the number of psychiatric consultations increased to 96% in 1971, when 9,776 consultations were effected, until 1974 when 19,039 consultations took place.

The dental consultations in 1974 were 265,401.

In order to have an idea of the outgoing patients through the years in the Health Ministry, we include a chart showing a sustained increase in the number of outgoing patients in the country.

Another very important activity is the vaccination activity developed by the Ministry of Health. It bears noting that during the year 1972, 459,131 doses were administered in comparison with 2,224,806 during 1974, which represents an increase of 1,765,675 doses of vaccine in a three year period. The dosage of vaccines in the program for adults of 15 years and over, increased 10 times from 1972 to 1975, that is, from 52,250 vaccines in 1972 to 572,449 in 1974 as a by-product of the anti-malarial vaccination.

In the spraying operations the Ministry of Health also increased its percentage of sprayed houses. Accordingly, it has been possible to provide over 88% of the programmed houses. Thanks to this activity during 1971, 166,669 persons were benefited in comparison with 434,150 protected during 1972, 277,493 persons during 1973, and 251,221 persons during 1974. The spraying activity is diminishing based on the fact that Malaria is being controlled more and more and this personnel is being utilized in other aspects.

Also significant is the output by the programs of assistance of the Ministry of Health and by the departments of Pharmacy, Drugs and Nutrition. Prominence should be given to the activities of the water mobile units. For example, the motorship Health I based at Folks River,

covers the province of Colon, the province of Veraguas in its northern part, the province of Bocas del Toro, the San Blas Islands, the eastern zone and the western zone. It is programmed to give assistance to 40 villages with 8,928 inhabitants. Its jurisdiction falls under the integrated system of Bocas del Toro, Veraguas, Colon and San Blas.

The motorship Health II based at Puerto Mutis covers the Gulf of Montijo in Veraguas and the eastern coast of the province of Chiriqui. It gives assistance to 21 villages and covers approximately 10,387 inhabitants, its jurisdiction falls under the integrated system of Veraguas.

The Health IV is based in the Bay of Panama and covers the province of Panama, the Pearl Islands Archipelago, the Islands of Otoque, the Gulf of San Miguel and Darien. It has programmed 22 villages and gives assistance to an average of 8,928 inhabitants.

The motorship Health VI is a little larger and due to its characteristics it is used in coasting trade to transport heavy equipment towards distant places and the amount of money saved by the use of this motorship in transportation, taking into consideration the cost and time, is exceptional. To date it has transported a total of 17,640 tons at a value of \$388,078.

#### The Social Security Agency

Through its program of disease and maternity it offers primarily medical consultations. The medical consultations have increased by 12.4% from 1970 to 1974. That is, from 1,372,823 during 1970 up to

2,188,887 during 1974. Of the total medical consultations 54% were provided to the residents of the Province of Panama, 86% of these were for the Provinces of Panama, Chiriqui, Colon and Veraguas. They depend on the manner in which the insured demand their services and on the installations, resources and location.

As regards the injections, these had an average annual increase of 18.1%, the total of injections in 1970 was of 456,525 in comparison with 858,314 for 1974. Of the latter, approximately two-thirds have been given in the Province of Panama, while 81% were distributed in the Provinces of Colon, Chiriqui, Veraguas and Panama.

In dental care, the Social Security has risen to an annual average of 11.5%; from 20,130 in 1970 ascending to 493,854 for 1974. At a provincial level it may be observed that approximately half of the medical consultations take place in the province of Panama. If to the latter we add those provided to Chiriqui and Veraguas, we would then have a total of 64%.

#### Pharmacological Prescriptions

This is the larger activity provided as regards the amount of services within the program. Of 3,430,067 prescriptions in 1970, in 1974 they rose to 5,781,398 which represents an annual average increase of 13.9%. 60% of the prescriptions were offered in the province of Panama and 75% in the province of Chiriqui and Panama.

#### Laboratory Tests

Laboratory tests for the period 1970-1974 an annual average increase

of 21%. The province to benefit the most from these services was Panama with 59%. The province of Chiriqui and Panama received 73%. Radiological tests grow at an annual rate of 15.6%, which represents a difference of 78,229 tests in 1970 to 139,054 in 1974. Of these, 72% were provided in the Province of Panama and 78% between the province of Chiriqui and Panama. The program of disability, old-age and death may be appreciated from the viewpoint of the financial charts, together with the economic assistance rendered in this aspect. The program of professional risks may also be judged in relation to the subsidies received.

As far as the supply of potable water, Panama has reached truly satisfactory goals, yet studies demonstrate that this situation must be bettered. For example, from the urban point of view, almost the entire population is benefited with potable water, and only towards the end of 1975 it is expected that 7% will not have intradomiciliary connections. This condition is present in almost the totality of the marginal housing sectors located in Panama.

As regards the availability of potable water at rural level, it is considered that approximately only half are provided with potable water and towards the end of 1975, it is estimated that only 15% of the population located in the rural area will be provided with intra-domiciliary connections. It should be emphasized that according to the program of construction of rural aqueducts from 1970 to 1974, 277 rural aqueducts have been constructed and distributed in this manner: in 1970, 9; in

1971, 52; in 1973, 72-74; in 1973, 27; and in 1974, 115. Although the production of services shows satisfactory increases, the production per resource unit could be increased and the yield of the resources might be bettered. The objective of the Panamanian State in this respect is: 1) increase productivity, 2) increase the yield; 3) increase the efficiency. The strategy is based on the diagnosis of the sector. It is intended in this manner to achieve an administrative reform by the integration of the Ministry of Health and the Social Security Agency, developing homogenous policies and standards that will allow the development of uniform programs. By means of the unification of the technical and administrative programs, the efficiency and the efficacy of this situation will allow the judging of the evaluation of these two institutions. In spite of the fact that, in a certain sense, both institutions develop health activities, the programs carried out by these institutions are regulated by different policies and standards and their actions are different in many aspects. In relation to the average cost of the instruments, it is necessary to determine the administrative adequacy, in order to detect the values of each cost in an appropriate manner in order to rationalize and detect the lowest cost necessary for the performance of specific services, which, using lower paid personnel will enable to accomplish a greater number of activities at a lower cost.

Cuadro No. 16

CONSULTAS EXTERNAS TOTALES BRINDADAS EN LAS INSTITUCIONES DE SALUD, POR PROVINCIA  
Y PROFESIONAL QUE PRESTO EL SERVICIO, EN LA REPUBLICA: 1974

PROVINCIA	TOTAL	PROFESIONAL QUE PRESTO EL SERVICIO					
		Médico (1)	Odontólogo	Enfermería (1)	Psicólogo	Servicio Social	Otro
<u>TOTAL.....</u>	<u>2,027,229</u>	<u>1,541,662</u>	<u>265,284</u>	<u>199,992</u>	<u>8,560</u>	<u>8,769</u>	<u>2,962</u>
Hospitales Nacionales (2)..	107,924	104,493	62	-	2,790	579	-
Bocas Del Toro (3).....	142,054	99,458	12,995	29,569	-	-	12
Coclé.....	145,326	94,379	35,879	14,962	-	-	106
Colón (3).....	286,285	242,171	24,101	18,969	952	69	23
Chiriquí.....	227,293	168,646	34,242	23,636	-	335	434
Darién.....	22,933	19,532	1,211	2,190	-	-	-
Herrera.....	87,986	59,803	17,172	10,859	-	-	152
Los Santos.....	104,642	66,094	22,309	13,328	1,892	-	1,019
Panamá:	<u>665,022</u>	<u>497,022</u>	<u>61,216</u>	<u>68,901</u>	<u>2,926</u>	<u>7,786</u>	<u>1,171</u>
Metropolitana.....	477,603	355,337	65,399	45,053	2,926	7,786	1,102
Oriental.....	168,469	129,920	21,626	16,854	-	-	69
San Blas.....	18,950	11,765	191	6,994	-	-	-
Veraguas (3).....	237,764	190,064	30,097	17,558	-	-	45

(1) Incluye las consultas de las Clínicas de Control y Desarrollo, Morbilidad, Control de Madres y Planificación Familiar.

(2) Se refiere a los hospitales Santo Tomás, Del Niño y Psiquiátrico.

(3) Provincias con servicios integrados C.S.S./M.Salud.

Cuadro No. 18

CONSULTAS MEDICAS POR MORBILIDAD EN LAS INSTITUCIONES DEL  
 MINISTERIO DE SALUD, SEGUN PROVINCIA, EN  
 LA REPUBLICA: 1970-1974

PROVINCIA	AÑO				
	1970	1971	1972	1973	1974
TOTAL.....	1,097,408	1,013,119	1,118,885	1,377,941	1,392,624
Bocas del Toro (1).....	14,034	21,762	19,298	93,594	95,440
Coclé.....	64,502	70,089	75,733	73,656	81,900
Colón (1).....	27,023	63,668	82,518	227,837	230,048
Chiriquí.....	149,196	152,857	160,924	136,083	154,291
Darién.....	13,326	12,782	10,192	12,592	18,940
Herrera.....	51,087	63,827	56,984	52,197	52,251
Los Santos.....	51,916	56,935	60,024	61,329	55,291
Panamá:	664,196	502,272	557,647	545,900	511,361
Hospitales Nacionales....	521,414	197,161	158,594	136,226	100,577
Metropolitana.....	91,789	229,776	292,557	294,788	296,108
Oriental .....	50,993	75,335	106,496	114,886	114,676
Veraguas (1).....	58,046	64,079	83,588	164,332	181,961
San Blas.....	4,082	4,848	11,977	10,421	11,141

(1) Provincias con servicios integrados C.S.S./M. de Salud, desde febrero de 1973.

Cuadro No. 19

CONSULTAS A GESTANTES Y PUERPERAS,  
POR PROVINCIA E INSTITUCION  
EN LA REPUBLICA: 1974

72 277

PROVINCIA E INSTITUCION	TOTAL	G E S T A N T E S						No espe- cifi- cado	Puer- neras	Mor- bili- dad
		- 4 meses		4-6 meses		7-9 meses				
		Consul- tas	Perso- nas	Consul- tas	Perso- nas	Consul- tas	Perso- nas			
TOTAL.....	88,467	9,489	6,789	24,657	10,587	38,125	8,736	1,528	14,567	10,342
BOCAS DEL TORO (1)	5,004	536	344	911	336	1,359	347	356	1,842	-
C.M.J. Bocas del Toro...	263	31	20	64	25	72	22	-	96	-
C.S.M.I. Changuinola....	4,741	505	324	847	311	1,287	325	356	1,746	-
COCLE	7,438	663	457	2,242	897	3,803	651	66	664	762
C.M.I. Marcos Robles....	2,241	223	136	678	187	1,030	102	8	252	258
C.S.E.P. Matá.....	318	37	21	102	45	171	40	-	8	41
C.S.A.M. Calobre.....	460	38	33	134	92	209	42	-	29	1
C.M.J. Aquilino Tejeira.	3,018	223	180	812	392	1,638	345	50	295	400
C.S.M.I. Antón.....	513	34	24	170	78	254	46	-	55	20
C.S.M.I. La Pintada.....	580	75	40	193	61	281	30	6	25	37
C.S.M.I. El Valle.....	308	33	23	103	42	170	46	2	-	5
COLON (1) (2)	10,014	1,325	841	2,978	1,341	3,725	1,918	-	1,986	-
Policlínica Próspero Meléndez.....	10,014	1,325	841	2,978	1,341	3,725	1,918	-	1,986	-
CHIRIQUI	11,425	1,539	1,122	3,528	1,495	4,888	1,129	147	1,323	1,402
C.M.T. José D. de Obaldía.....	955	133	111	262	100	445	94	25	90	97
C.S. Barrio Bolívar.....	858	119	71	269	79	372	72	2	96	17
C.S. San José.....	799	79	52	274	112	394	107	8	44	132
C.S. San Mateo.....	500	75	42	172	69	211	61	6	35	13
C.S. Las Lomas.....	360	36	25	117	41	166	19	3	38	53
C.S. Dolega.....	702	65	53	229	75	325	56	11	72	104

Quadro No. 28

CONSULTAS ODONTOLÓGICAS SUMINISTRADAS EN LAS INSTITUCIONES  
DE SALUD SEGUN PROVINCIA, EN LA REPUBLICA:  
1970-1974

PROVINCIA	AÑO				
	1970	1971	1972	1973	1974
TOTAL.....	<u>152,646</u>	<u>152,238</u>	<u>172,021</u>	<u>331,659</u>	<u>265,401</u>
Bocas del Toro (1).....	2,293	2,197	1,534	87,334	12,995
Coclé.....	16,233	13,343	21,013	30,704	35,879
Colón (1).....	6,092	5,354	7,636	31,460	24,101
Chiriquí.....	22,916	15,514	23,959	27,316	34,242
Darién.....	874	680	-	268	1,211
Herrera.....	13,546	13,586	15,483	14,556	17,172
Los Santos.....	17,820	13,366	20,824	22,618	22,309
Panamá:	<u>62,070</u>	<u>79,285</u>	<u>73,358</u>	<u>75,453</u>	<u>87,087</u>
Hospitales Nacionales...	12,490	10,499	6,290	1,759	62
Metropolitana.....	37,590	56,896	54,528	56,006	65,399
Oriental.....	11,990	11,890	12,540	17,688	21,626
Veraguas (1).....	10,737	8,807	8,103	41,948	30,214
San Blas.....	65	106	111	2	191

(1) Provincias con servicios integrados C.S.S./M. de Salud desde 1973.

## Cuadro No. 36

EGRESOS HOSPITALARIOS REGISTRADOS EN LAS INSTITUCIONES DE SALUD  
POR PROVINCIA, EN LA REPUBLICA: 1970-1974

Provincia	Año				
	1970	1971	1972	1973	1974
TOTAL.....	<u>79,749</u>	<u>99,889</u>	<u>91,591</u>	<u>89,071</u>	<u>100,572</u>
Eccas del Toro (1).....	377	756	588	a/ 677	2,200
Coclé.....	9,024	8,600	7,592	7,212	7,773
Colón (1).....	6,270	8,591	6,887	9,343	8,708
Chiriquí.....	11,975	14,616	11,951	12,070	13,148
Darién.....	672	897	504	531	563
Herrera.....	4,399	6,206	5,250	5,276	5,145
Los Santos.....	3,511	6,252	5,720	5,653	5,122
Panamá.....	40,304	47,237	45,039	41,400	45,918
Veraguas (1).....	3,106	6,304	6,698	6,002	9,358
San Blas.....	111	430	1,278	907	1,566
No especificada.....	-	-	126	-	1,071

a/ Excluye los hospitales de Almirante y Changuinola.

(1) Provincias con servicios integrados, Caja de Seguro Social y Ministerio de Salud.

## Cuadro No. 37

DOSIS ADMINISTRADAS SEGUN TIPO DE VACUNA, POR PROGRAMA,  
EN LA REPUBLICA: 1974

VACUNA Y DOSIS	TOTAL	PROGRAMA					Sub-programa Maternal	Adultos (15 y +)	No informado
		Subprograma Infantil							
		-1	1-4	5-9	10-14				
TOTAL.....	<u>2,224,806</u>	<u>229,485</u>	<u>689,829</u>	<u>502,725</u>	<u>181,143</u>	<u>47,919</u>	<u>572,447</u>	<u>1,257</u>	
<u>Antivariólica:</u>	<u>48,290</u>	<u>975</u>	<u>7,703</u>	<u>5,453</u>	<u>4,974</u>	<u>1,782</u>	<u>27,400</u>	<u>3</u>	
1a. dosis.....	20,024	984	7,051	3,373	2,151	14	9,751	3	
Revacunación.....	28,266	291	652	2,080	2,823	1,768	20,649	-	
<u>D.P.T.:</u>	<u>434,192</u>	<u>74,280</u>	<u>255,632</u>	<u>101,053</u>	<u>1,608</u>	<u>6</u>	<u>484</u>	<u>1,110</u>	
1a. dosis.....	179,688	37,914	103,050	37,344	684	3	307	306	
2a. dosis.....	134,208	23,219	78,844	31,410	313	1	26	389	
3a. dosis.....	84,647	11,646	52,265	20,163	127	-	22	424	
Refuerzo.....	35,649	1,501	21,473	12,140	484	2	49	-	
<u>Antipoliomielítica:</u>	<u>590,524</u>	<u>104,567</u>	<u>287,435</u>	<u>179,475</u>	<u>19,263</u>	<u>2,975</u>	<u>3,896</u>	<u>-</u>	
1a. dosis.....	262,191	57,545	123,641	69,249	7,415	1,837	2,394	-	
2a. dosis.....	175,362	27,487	17,278	54,731	5,355	889	651	-	
3a. dosis.....	106,730	16,389	54,120	33,047	3,044	140	312	-	
Refuerzo.....	51,243	3,436	22,396	22,448	2,449	89	449	-	
<u>B.C.G.:</u>	<u>74,106</u>	<u>19,969</u>	<u>13,670</u>	<u>14,254</u>	<u>8,128</u>	<u>7,009</u>	<u>10,676</u>	<u>-</u>	
1a. dosis.....	64,297	19,032	10,382	11,068	6,523	7,001	10,530	-	
Revacunación.....	9,719	837	3,588	3,186	1,605	6	446	-	
<u>Antisarampiónica:</u>	<u>65,939</u>	<u>8,316</u>	<u>17,506</u>	<u>31,779</u>	<u>6,303</u>	<u>53</u>	<u>2,932</u>	<u>14</u>	

VACUNA Y DOSIS	TOTAL	PROGRAMA						No informado
		Subprograma Infantil				Subprograma Maternal	Adultos (15 y+)	
		-1	1-4	5-9	10-14			
<u>Toxoide Tetánico:</u>	<u>62,700</u>	<u>770</u>	<u>2,002</u>	<u>5,024</u>	<u>7,353</u>	<u>17,204</u>	<u>34,085</u>	-
1a. dosis.....	30,822	590	1,733	3,540	4,200	11,791	16,000	-
2a. dosis.....	12,484	79	394	1,111	1,390	5,103	4,521	-
Revacunación.....	17,400	103	735	1,273	1,675	390	13,204	-
<u>Antiamebílica:</u>	<u>901,523</u>	<u>2,431</u>	<u>13,140</u>	<u>147,510</u>	<u>125,523</u>	<u>10,400</u>	<u>400,302</u>	<u>121</u>
1a. dosis.....	95,027	2,304	12,700	147,112	124,940	17,035	402,733	121
Revacunación.....	5,696	47	350	498	577	505	3,659	-
<u>D.T.:</u>	<u>3,450</u>	<u>141</u>	<u>1,703</u>	<u>17,228</u>	<u>9,834</u>	<u>245</u>	<u>1,307</u>	-
1a. dosis.....	17,320	91	1,351	9,312	5,205	134	677	-
2a. dosis.....	7,435	45	277	4,770	1,911	0	345	-
Revacunación.....	5,703	5	75	2,640	2,659	31	295	-
<u>Otras:</u>	<u>5,100</u>	<u>20</u>	<u>172</u>	<u>140</u>	<u>157</u>	<u>105</u>	<u>4,420</u>	-
1a. dosis.....	3,547	24	110	90	113	131	3,772	-
2a. dosis.....	1,220	4	30	20	24	41	1,195	-
3a. dosis.....	74	-	10	10	5	-	35	-
Refuerzo.....	259	-	-	7	15	13	224	-

Cuadro No. 38

DOSIS ADMINISTRADAS SEGUN TIPO DE VACUNA, POR PROVINCIA, EN LA REPUBLICA: 1974

VACUNA Y DOSIS	TOTAL	P R O V I N C I A										
		Bocas del Toro	Coclé	Colón	Chiriquí	Darién	Herre-ra	Los Santos	Panamá			Vera-guas
								Metro-politana	Pesto provin-cia	San Blas		
<b>TOTAL.....</b>	<b>2,224,806</b>	<b>43,494</b>	<b>219,874</b>	<b>131,731</b>	<b>387,259</b>	<b>18,646</b>	<b>118,294</b>	<b>117,844</b>	<b>738,744</b>	<b>234,049</b>	<b>36,551</b>	<b>178,320</b>
<b>Antivariólica:</b>	<b>48,290</b>	<b>881</b>	<b>2,556</b>	<b>2,464</b>	<b>5,076</b>	<b>262</b>	<b>1,916</b>	<b>1,596</b>	<b>30,766</b>	<b>1,622</b>	<b>88</b>	<b>1,057</b>
1a. dosis.....	20,024	722	2,011	2,158	2,212	115	1,453	1,292	8,081	1,352	83	530
Refuerzo.....	28,266	159	545	296	2,864	147	463	304	22,685	276	-	527
<b>D.P.T.:</b>	<b>434,192</b>	<b>5,555</b>	<b>40,382</b>	<b>19,749</b>	<b>82,608</b>	<b>5,453</b>	<b>26,400</b>	<b>17,557</b>	<b>154,306</b>	<b>41,216</b>	<b>4,289</b>	<b>36,677</b>
1a. dosis.....	179,688	3,365	16,372	15,905	33,424	2,729	14,065	6,187	50,032	18,901	2,311	16,397
2a. dosis.....	134,208	1,293	12,981	1,884	26,007	1,879	7,792	6,184	50,248	12,589	1,134	12,217
3a. dosis.....	84,647	763	7,042	1,569	18,470	698	3,078	2,951	34,850	8,670	537	6,019
Refuerzo.....	35,649	134	3,987	391	4,707	147	1,465	2,235	19,176	1,056	307	2,044
<b>Antipoliomielítica:</b>	<b>596,524</b>	<b>6,543</b>	<b>56,617</b>	<b>22,803</b>	<b>96,800</b>	<b>6,473</b>	<b>34,233</b>	<b>33,213</b>	<b>213,453</b>	<b>66,144</b>	<b>8,500</b>	<b>51,645</b>
1a. dosis.....	262,181	4,133	22,455	19,722	39,960	3,442	19,004	8,737	86,961	28,924	4,264	24,579
2a. dosis.....	176,362	1,415	17,563	1,467	29,461	1,841	9,285	10,858	64,192	19,721	2,672	17,887
3a. dosis.....	106,738	650	8,916	1,102	20,714	910	4,116	4,274	43,880	13,415	1,494	7,267
Refuerzo.....	51,243	345	7,683	512	6,665	280	1,828	9,344	18,420	4,084	170	1,912
<b>B.C.G.:</b>	<b>74,006</b>	<b>4,841</b>	<b>13,358</b>	<b>1,912</b>	<b>5,156</b>	<b>143</b>	<b>4,031</b>	<b>2,128</b>	<b>28,246</b>	<b>8,291</b>	<b>71</b>	<b>5,829</b>
1a. dosis.....	64,287	4,817	12,937	1,912	4,147	143	2,952	1,865	24,580	5,927	44	4,963
Refuerzo.....	9,719	24	421	-	1,009	-	1,079	263	3,666	2,364	27	866
<b>Antisarampionosa:</b>	<b>65,939</b>	<b>2,563</b>	<b>9,698</b>	<b>1,067</b>	<b>15,900</b>	<b>3,301</b>	<b>5,950</b>	<b>2,564</b>	<b>12,941</b>	<b>4,527</b>	<b>1,141</b>	<b>6,287</b>
<b>Toxoide Tetánico:</b>	<b>68,766</b>	<b>1,135</b>	<b>4,586</b>	<b>2,805</b>	<b>9,944</b>	<b>990</b>	<b>3,708</b>	<b>12,522</b>	<b>18,690</b>	<b>6,810</b>	<b>465</b>	<b>7,111</b>
1a. dosis.....	38,822	927	3,310	2,606	4,118	837	2,301	6,158	8,223	4,565	399	5,378
2a. dosis.....	12,484	190	1,127	144	1,660	146	1,086	2,547	2,167	2,006	60	1,351
Refuerzo.....	17,460	18	149	55	4,166	7	321	3,817	8,300	239	6	382

VACUNA Y DOSIS	TOTAL	P R O V I N C I A										
		Bocas del Toro	Coclé	Colón	Chiriquí	Darién	Herre-ra	Los Santos	Panamá			Vera-guas
									Metro-polita-na	Pesto provin-cia	San Blas	
<u>Antiamarílica:</u>	<u>901,523</u>	<u>17,440</u>	<u>86,325</u>	<u>80,931</u>	<u>167,544</u>	<u>1,421</u>	<u>40,257</u>	<u>42,479</u>	<u>271,037</u>	<u>104,581</u>	<u>21,851</u>	<u>67,657</u>
1a. dosis.....	895,827	17,433	86,325	80,931	167,544	1,421	38,819	42,396	266,877	104,573	21,851	67,657
Refuerzo.....	5,696	7	-	-	-	-	1,438	83	4,160	8	-	-
<u>D.T.:</u>	<u>30,458</u>	<u>4,536</u>	<u>6,350</u>	<u>-</u>	<u>4,154</u>	<u>603</u>	<u>1,799</u>	<u>5,756</u>	<u>4,481</u>	<u>812</u>	<u>46</u>	<u>1,921</u>
1a. dosis.....	17,320	3,321	4,335	-	1,588	220	1,284	1,271	3,492	401	46	1,362
2a. dosis.....	7,435	806	1,248	-	1,825	314	426	1,355	774	279	-	408
Refuerzo.....	5,703	409	767	-	741	69	89	3,130	215	132	-	151
<u>Otras:</u>	<u>5,108</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>77</u>	<u>-</u>	<u>-</u>	<u>29</u>	<u>4,824</u>	<u>40</u>	<u>-</u>	<u>136</u>
1a. dosis.....	3,547	-	2	-	64	-	-	12	3,375	6	-	88
2a. dosis.....	1,228	-	-	-	11	-	-	-	1,117	29	-	11
3a. dosis.....	74	-	-	-	2	-	-	-	30	5	-	37
Refuerzo.....	259	-	-	-	-	-	-	17	242	-	-	-

## COMMUNITY PARTICIPATION IN HEALTH PROGRAMS

The Health Policy of Panama is oriented toward satisfying the aspirations of the Government to achieve "Equal Health for All" with the participation of all Panamanians in the improvement in the quality of life and living standards.

The Health is both a goal and a means to an end in the process of development. The Government's policy since 1969 has been designed around community health programs. The concept of community health involves the integration of health programs with community organizations. Active participation by communities in health programs is fundamental. Community development requires a certain level of community organization.

The objective of facilitating the role of community and its participation in health services is reflected in Cabinet Decree #401 of December 29, 1970, which established and set forth the regulations for "Health Committees".

### Decree #401

The goals and objectives of the Health Committees as defined in Article 6 of Cabinet Decree #401 are the following:

1. Participate in all actions associated with health programs.
2. Assure the necessary means to assure that health rights are exercised by all members of the community.
3. Programs oriented toward providing optimum health for all the population.

Article 8 of the decree indicates that the organs of the Health Committees are:

- a. General Assembly
- b. Board of Directors
- c. Work Commissions

Organizing the community to function with the programs of the MOH has required a fundamental alteration in the traditional functioning of health and community organizations. Health Committees depart from the concept of the centralized planning and augur for health based on community organization and definition of necessities and identification/ participation in actions required to be taken by the community.

#### The Health Committee

The Health Committee is the total community which deals with the problems of health. The Committee is supported by health officials who provide the instrument of transformation through education. The Health Committee constitutes a point of contact between the communities and local level officials. The responsibilities of the Health Committees in improving communities was established under Law 105 of October 1973, which created Community Boards. The Community Boards are a resource within each Corregimiento to advance community development programs.

#### Community-Installed Physical Capacities

It is evident that the Health Committee has produced a consolidation of community leaders. The legal leader, the representative of the Corregimiento is an important element in the functioning of the system. The directorate of the Health Committee is an important local point of contact for officials of the Ministry of Health. Health Committees

function through work commissions which have as their objective the development of programs with the MOH. There are commissions dealing with medical attention, medical visits, preventive health services, and problems related to environmental health, (e.g. construction of wells, aqueducts, garbage collection, control of vectors.) Other commissions deal with the development of community gardens and health education.

There is a direct relationship between the functioning of the health committees and improvements in community health.

The majority of the communities are not well versed in health concepts and as a result are unable to develop health programs. On the other hand, many health workers are not acquainted with the communities and their health problems. A seminar on community health should narrow the gap between the community and the health worker. The community base seminar should discuss the most important problems facing the community and be conducted after a survey by local officials examines matters related to nutrition, health of the population and the state of sanitation.

Participation by high level officials of the Ministry in conducting community seminars has produced a dramatic increase in the number of Health Committees. In 1971, there were over 100 health committees. In 1972, there were 471, and in 1973 there were 838 distributed as follows:

Metropolitan Area	52
Eastern Region	299
Central Region	301
Western Region	186

The grouping of health committees within a region constitutes a Federation of Health Committees at a provincial level. There is also one at the national level. They coordinate the efforts of the committees with that of the MOH in dealing with problems which cannot be resolved by the sector coordination commission.

#### Objectives of the Community Participation Program

The objective can be summarized as the effective participation of the population in health programs with the goal of achieving community health.

#### Strategy

The strategy consists of increasing the efficiency and efficacy of community health education and organization in order to increase the number and functioning of the Health Committees. In rural areas this program increase with the training and assignment of para-health personnel who will play a key role in the formation and functioning of community health organizations.

#### Programs

The effectiveness of organizational and education programs of the community by the MOH is proceeding satisfactorily and it is proposed to keep at the local level those programs most amenable to local solutions.

#### Evaluation

1. An evaluation of health committee participation and relation to successful health programs is difficult to conduct.
2. One should consider the number of persons within the community who

participate actively, i.e. those who participate within the commissions of the health committee. At the same time, a survey should be conducted among those who participate relatively passive or in a collateral manner and those whose participation is limited in specific programs. As part of the Health Diagnosis a detailed study will be conducted by MOH personnel, sociologists and anthropologists to identify the characteristics and modalities for community participation.

A recently completed study as part of the Health Diagnosis undertaken by the Department of Training and Investigation of the MOH, should be used as the basis for further studies particularly in rural areas to determine community participation in health programs.

EVALUATION

A plan of evaluation should be part of this study and the T.C. has considered that if the finding of the assessment have identified health problems, constraints to the implementation of programs, have established recommendations to continue health programs, have established strategies to overcome constraints and more important has endorsed the integration of the health sector as the means to a national public health care delivery system inspired on the slogan "Salud igual para todos", considered that to determine the achievement of the objectives of the health program, a plan of evaluation should address to the following areas of concern:

1. Is the health care system performing the basic managerial functions?
2. Is the health care system providing health services effectively to meet the priority health needs of the population?
3. Is the health care system achieving an improvement in the health status of the population?

A complete detailed evaluation program on the basis of the three premises abovementioned to be completed and presented at the time of the presentation of the project paper.

## SUMMARY

### Conclusions

1. The analysis of the health conditions in Panama presents significant changes in the last five years. Although the health standards are comparable to those of a developed country, there are still outstanding deficiencies in the rural and marginated urban areas.
2. The study has made it possible to identify that the areas with major problems are:
  - 2.1 The need to provide primary health services at a low cost, for the widely dispersed and marginated urban population.
  - 2.2 The need to establish administrative and management services that will result in the development of the activities mentioned in 2.1.
  - 2.3 The need to fit the physical facilities available to solve the demands made by the population.
  - 2.4 The need to train the adequate human resources for the development of the programs.
  - 2.5 The need to improve the environmental and sanitary conditions such as (water supplies, waste disposal, etc.)
  - 2.6 The need to improve the nutrition standard of the rural communities as well as the marginated urban areas.
  - 2.7 The need to educate and organize the communities in order to obtain greater participation in their health programs.

3. The assessment evaluation shows in general terms, the benefits of programs for the development, of community health activities, at low cost. Nevertheless, without the proper financing there is the risk that the action will decrease at the levels already attained.

LIST OF CONCERNS

1. Morbidity and Demand

The present assessment allows us to become familiar with the morbidity structure and the mortality attended to. The further expansion of this study with the assistance of an investigation at the community level, will help us find the hidden morbidity, the demands satisfied and justifiable, as well as those not satisfied. In this way it would be feasible to program the services according to the levels of health attention, by organizing the human resources, the materials and the definition of technical procedures for the development of the health policy and be able to obtain the necessary financing.

2. Geographical and Population Coverage

This study pretends to determine the influential area in each of the health facilities, according to the geographical accessibility and the population groups attended.

3. Administration and Management

The administrative and general analysis presented in a schematic form must be expanded to include the administrative personnel, and it is necessary to specify more on logistics and maintenance.

4. Human Resources

The study on human resources should include specific data, including technical and administrative personnel, analysis of the productivity, and the type of resources required and in need of training.

5. Facilities

The study on the facilities available and the equipment must be completed.

6. Community Participation

Knowledge of the participation of the community is fundamental to the programs for Evaluation and Objectives of the community, for these are the basis of the health programs.

DOCUMENTOS DEL DIAGNOSTICO DE SALUD

No.	Título	Preparado Por	Profesión	Institución
1	Introducción-Planificación Familiar			
2	(Resumen) Diagnóstico de los Recursos Humanos en el Sector Salud: Período 1970/74	Aurora C. de Correa	Planificadora	Ministerio de Planificación y Política Econ.
3	Aspectos Geográficos del Istmo de Panamá	José Barahona	Lic. y Prof. de Geografía	Min. de Salud
4.	Diagnóstico de la Situación Nutricional de Panamá	Lucila Sogandares Cutberto Parillón	Dra.-Nutrición Dr.-Pediatra MPH-Nutrición	Min. de Salud Min. de Salud
5.	Introducción - Mortalidad	Raul Batista	Estadígrafo	Min. de Salud
6.	Número de Lugares Poblados en la República por Provincias	José Barahona	Lic. y Prof. de Geografía	Min. de Salud
7.	Situación Actual y Necesidades de Recursos Humanos en el Sector Salud de Panamá a 1980.	Aurora C. de Correa	Planificadora	Ministerio de Planificación y Política Econ.
8.	Los Sistemas Administrativos del Sector Salud	Armando Aguilar M. Jilma V. de Mendez Marina Herrera	Lic. Lic. Lic.	Min. de Salud Min. de Salud Min. de Salud
9.	Evolución de la Fecundidad en la República de Panamá	Federico Guerra	Estadístico Analista	Min. de Salud
10.	Panamá: Participación de la Población en las Actividades Económicas: 1950 - 1970	Félix Mascarín	Lic.	Min. de Salud
11.	Fecundidad	Federico Guerra	Estadístico Analista	Min. de Salud

No.	Título	Preparado por	Profesión	Institución
12.	La Dispersión de la República de Panamá	Jose A. Barahona	Lic.	Min. de Salud
13.	Nivel de Analfabetismo y de Instrucción de la Población en Panamá	Federico Guerra	Est.Analista	Min. de Salud
14.	Plan Decenal de Salud para las Américas y las Metas de Salud de la República de Panamá			
15.	Las Barriadas de Emergencia de Panamá	Federico Guerra	Est.Analista	Min. de Salud
16.	La Participación de la Comunidad en los Comités de Salud	Jorge Montalván	Sociólogo Doctor	Min. de Salud
17.	Nivel de Desarrollo y Proyecciones en los Programas de Abastecimiento de Agua Potable, Disposición Sanitaria de Excretas y Recolección y Disposición Final de los Desechos Sólidos en Pmá.	Iván Estribí	Ing.	Min. de Salud
18.	Política y Proceso de Planificación del Sector Salud - Panamá	Enrique García	Doctor	Min. de Salud
19.	Morbilidad	Raúl Batista	Estadígrafo	Min. de Salud
20.	Necesidades de los Principales Recursos Humanos en Salud	Federico Guerra	Estadístico Analista	Min. de Salud
21.	La Estructura Institucional del Sector Salud	Secundino Sánchez	Lic.	CSS

INTEGRATED HEALTH SYSTEM

DIVISION OF  
ORGANIZATION AND EDUCATION FOR COMMUNITY HEALTH

COURSE PROGRAM  
FOR THE TRAINING OF PARA-HEALTH PERSONNEL

I. ORIENTATION ..... 6 hours

A. Course Program (2 hours)

1. Objectives
2. Duration
3. Timetable
4. Teaching Personnel
5. Theory Classes
6. Practice
7. Clinical Work
8. Evaluation
9. Course Plan

B. Learning Concepts (2 hours)

1. How to take notes
2. Practical rules for studying

C. Concepts of Ethics (2 hours)

1. Definition of Ethics
2. Discipline
3. Attitudes toward patients, families and other groups
4. Characteristics and behavior of Para-Medical Personnel

II. GENERAL KNOWLEDGE ..... 28 hours

A. Introduction to Health (2 hours)

1. Concept of Health
2. Organization and Policies of the Ministry of Health and the Social Security Fund
3. Panamanian Health Problems
4. Panamanian Health Programs

B. General Hygiene (14 hours)

1. Health and Illness (1 hour)
2. Hygienic Habits (1 hour)
  - a. Body hygiene
  - b. Menstrual hygiene
  - c. Clothing, tiredness, rest, exercise
3. Food and Its Relation to Health (8 hours)
  - a. Basic food groups
  - b. Balanced diet
  - c. Individual nutrition requirements
  - d. Food in the first year of life
  - e. Food during pregnancy
  - f. Participation of para-health personnel in solving nutrition problems
4. Mental Hygiene (4 hours)
  - a. Definition
  - b. Qualities of mentally sane persons
  - c. Basic individual needs

C. Epidemiological Concepts (6 hours)

1. Infancy
2. Pre-school
3. School Age
4. Adolescent
5. Adult
6. Old Age

III. ENVIRONMENTAL SANITATION ..... 30 hours

A. Introduction to Environmental Sanitation (2 hours)

1. Definition of Health (WHO)
2. Concept of Environmental Sanitation
3. Diseases Related to the Environment
4. Basic Aspects of Environmental Sanitation

B. Water Supply Control (5 hours)

1. Definition of Supply
2. Potable Water Concepts
3. Contamination of Supply
  - a. Dangers
  - b. Simple measure to eliminate problem
  - c. How measures are established

4. Water Supplies in Rural Areas. Analysis of Same Under Health Concepts
  - a. Superficial wells
  - b. Rivers and streams
  - c. Rainwater
5. Solutions to Rural Supply Problems in Rural Areas
  - a. Simple aqueducts
  - b. Perforated tubular well
  - c. Protected excavated well
6. Responsibility of Para-Health Personnel Relative to the Water Problem
  - a. Adequate maintenance of the supplies
  - b. Public education
  - c. Participating in efforts to resolve the problem
  - d. Problems which should be referred to the inspector
7. Discussion of the film: Water: Friend or Enemy
8. Practice
  - a. Visit several types of unsanitary supplies
  - b. Visit to aqueducts, perforated tube and deep wells under construction and in operation

C. Control of Excrements (5 hours)

1. Human excrements as a source of infection
2. Importance of adequate disposal of excrements
3. Solutions to the problem of adequate disposal of excrements in rural areas
  - a. Latrines
    - materials needed for construction
    - resources in the community available for its construction (gravel, sand, wood, etc.)
    - how to construct: location, dimensions of hole, out house
4. Good use and maintenance of existing disposal systems
5. Responsibilities of para-health personnel
  - a. Orientation in the construction of the disposal system
  - b. Education of the community in maintenance of the disposal system
  - c. Participation in communal activities to resolve the problem
6. Discussion of a film on the subject
7. Practice
  - a. Demonstration on latrine construction
  - b. Visit to adequate disposal systems and those under construction

D. Refuse Control (4 hours)

1. Importance of garbage sanitation
2. Rural garbage disposal systems
  - a. Adequate
    - Incineration
    - Burying
    - Dumps
  - b. Inadequate
3. Refuse control in the home
4. Participation of para-health personnel in refuse control
5. Discussion of film "Garbage"
6. Practice
  - a. Construction of a garbage receptacle for the home
  - b. Visit to crematories, poultry farms, etc.

E. Home Sanitation (5 hours)

1. Importance of the problem from the health view point
2. Appropriate sanitary conditions for the home and surrounding area
  - a. Construction permit
  - b. Location
  - c. Interior arrangements
  - d. Available materials for floors, walls and roofs
  - e. Patio cleanliness and drainage
  - f. Sanitary devices for garbage
  - g. Sanitary devices for excrements
  - h. Water supply for the home
3. Role of para-health personnel toward the problem
  - a. Orientation of persons toward fulfilling aspects related to the home
  - b. Vigilance: cleanliness of patios, latrine utilization, etc
  - c. Advice and referral of problems to the inspector
4. Practice
  - a. Drafting a sketch of a home
  - b. Knowledge of building sanitary inspection certification requirements

F. Food Control (6 hours)

1. Socio-economic and sanitary importance of food
2. Dangers of contaminated food
3. Food handling hygiene
4. Sanitary conditions of food establishments
  - a. Most important aspects of the premises
  - b. Maintenance, cleanliness and appearance of the premises
  - c. Sanitary permit

5. Food handling hygiene
  - a. Who is a handler. Handler's importance for health.
  - b. Health certificate
  - c. Use of nets, caps and aprons
  - d. Personal cleanliness
6. Control of street vendor
7. Disinfection and protection of utensils and equipment in restaurants and in the home
8. Work of para-health personnel in this aspect
  - a. Supervision of permits and certificates
  - b. Vigilance of meeting existing sanitary regulations
  - c. Advice and referral of problems
9. Discussion of film on theme
10. Practice
  - a. Visit to slaughter house, butcher shops, bars, restaurants, etc.

G. Control of Anthropodes and Rodents (3 hours)

1. What are anthropodes and rodents
2. Sanitary and economic importance of anthropodes and rodents. Effects on public health.
3. Ways to control and exterminate disease vectors
  - a. House fly
  - b. Cockroaches
  - c. Mosquitos
  - d. Fleas and louse
  - e. Chinch bugs
  - f. Rats and mice
4. How the Environmental Sanitation Division deals with this problem.
5. Participation of para-health employees in this campaign
6. Discussion of film on this theme
7. Practice
  - a. Poisoning of rats and mice and precautions required
  - b. Vector control

IV. HEALTH EDUCATION ..... 18 hours

A. What is Health Education? (2 hours)

1. Definition
2. Philosophy and objectives
3. Importance and Education
4. Educational approach to health problems

B. Several Practical Educational Methods

1. Speeches
2. Demonstrations
3. Interviews
4. Surveys
5. Practice
  - a. Give speech and demonstrations
  - b. Participate in a survey

C. Planning of Health Programs and Activities

1. Problem detection
2. Analysis of priorities
3. Resource inventory
4. Action plan
5. Evaluation

D. Human Relations and Conduct of Para-Health Personnel. (4 hours)

1. Concept of human relations
2. Communication in human relations
3. Perception in human relations
4. Several practical rules to maintain good human relations
5. Conduct of para-health personnel as a model for the community

V. GENERAL CONCEPTS OF NURSING CARE .....

A. Concept of Nursing

1. What is nursing
2. Various types of nursing personnel
3. Role of para-health personnel in the Nursing Service
4. Functions of para-health personnel and related legal responsibilities

B. Medical-Surgical Techniques

1. Definition and principles
2. Methods of sterilization and disinfection
3. Care in the preparation of equipment and material

C. Nursing Care to Patients

1. Introduction
  - a. General rules for basic care
2. Basic concepts
  - a. Clean
  - b. Sterile
  - c. Dirty
  - d. Contaminated
  - e. Disinfected

3. Washing of hands
4. Disinfection through boiling; use of forceps
5. Injection techniques
  - a. Injectable medicines: preparation and dosage
  - b. Equipment: syringes and needles
  - c. Injection techniques: intradermical, subcutaneous, intramuscular
6. Vital sign indicators
  - a. Temperature: oral, rectal, axilar; techniques and equipment; lectures and report; disinfection of equipment
  - b. Pulse
  - c. Arterial pressure: equipment use and maintenance
  - d. Breathing
7. Weight control and height. Graphics
8. Participation of para-health personnel in medical consultations
  - a. Preparation of the patient for the physical examination
9. Participation in collecting specimens for diagnostic tests
  - a. Urine
  - b. Excrements
  - c. Sputum
10. Participation in the application of treatments
  - a. Hot and cold applications
    - Hot water bags
    - Ice packs
    - Hot and cold compresses
  - b. Administration of medicines
    - General knowledge of medicines, preparation, dosage, interpretation of prescriptions, use and administration of medicines, recommendations; medicine manual
  - c. First Aid
    - Equipment
    - Cleanliness of the area
    - Application of medicines
    - Dressings
    - Cleanliness of equipment

VI. FIRST AID TECHNIQUES ..... 40 hours

A. Generalities (1 hour)

1. Definition of first aid
2. Basic concepts in providing first aid

B. Contusions and Wounds (1 hour)

1. Definition
2. Attention to the injured

C. Hemorrhages (2 hours)

1. Definition
2. Pressure points
3. Application and use of tourniquets

- D. Shock (1 hour)
  - 1. Definition, causes and dangers
  - 2. Attention to the patient in a state of shock
- E. Fractures, Luxations, Bruises (2 hours)
  - 1. Definitions and types
  - 2. Immobilization
  - 3. Transportation
- F. Burns (2 hours)
  - 1. Types of burns
  - 2. Attention required by type
  - 3. Attitude to patients with severe burns
- G. Asphyxiation (3 hours)
  - 1. Types of asphyxiation
  - 2. Attention to the patient, by type
  - 3. Artificial respiration
- H. Foreign Bodies (1 hours)
  - 1. Care in removing foreign bodies
- I. Animal Bites (5 hours)
  - 1. Snake bites, treatment and tests
  - 2. Attention for patients bitten by wasps, scorpions, etc.
  - 3. Attention for patients bitten by dogs, cats, monkeys, rats, etc.
    - a. Care
    - b. Treatment
- J. Poisoning (3 hours)
  - 1. Food poisoning: definition; symptoms; treatment
  - 2. Other: definition; symptoms; treatment
- K. In Case of Illness (15 hours)
  - 1. Generalities
  - 2. Signs and symptoms of illnesses: fever, coughs, vomiting, chills, diarrhea, attacks, headaches
  - 3. Respiratory diseases
    - a. Asthma: symptoms, aspects of the patient, treatment
    - b. Bronchitis: symptoms, aspects of the patient, treatment
    - c. Acute Upper Respiratory Infection: symptoms, aspects of the patient, treatment

4. Diseases of the digestive tract
  - a. Gastroenteritis: symptoms, general aspects of the patient, treatment
  - b. Enteroparasitosis: symptoms, general aspects of the patient, treatment
5. Skin diseases
  - a. Infections: symptoms, general aspects of the patient, treatment
  - b. Scabs: symptoms, general aspects of the patient, treatment
6. Anaphylaxis

VII. MATERNAL/CHILD HEALTH..... 42 hours

A. Generalities (1 hour)

1. Maternal-infant care health problems in the country
2. Program components and activities

B. Anatomical and Physiological Concepts of the Reproduction Organs (3 hours)

C. Pregnancy and Pre-Natal Care (4 hours)

1. Signs and symptoms of pregnancy
2. Follow-up on pregnancy
3. Identification of high risk mothers; reference
4. Education for delivery

D. Attention at Birth (2 hours)

1. Washing of hands
2. Care during birth
3. Care of the umbilical cord
4. Post-partum care of mother and child

E. Post-Partum Care (2 hours)

1. Hygiene
2. Referral for medical follow-up
3. Diet

F. Care of the Newborn (4 hours)

1. Characteristics of the newborn
2. Immediate care and identification of congenital defects (APGAR scoring system)
3. Umbilical cord care
4. Bathing of the newborn
5. Breast feeding
6. Immediate care for the premature infant
  - a. Improvising an incubator

G. Attention for the Healthy Child (8 hours)

1. Feeding
  - a. Infant
  - b. Pre-school
  - c. School age
2. Evaluation of nutritional state
3. Hygiene
4. Growth and development
  - a. Nursing: observation; picture and chart of weight and height
  - b. Pre-school: observation; picture and chart of weight and height
  - c. School age: weight and height control pictures

H. Family Planning and Cancer Control (4 hours)

1. Benefits of family planning
2. Responsible parenthood
3. Birth control methods: classification and action
4. Detection of gynecological cancer: P<sub>AP</sub> test
5. Participation of para-health personnel in the family planning program

I. Immunizations (10 hours)

1. Orientation on preventible diseases: polio, diphtheria, whooping cough, tetanus, rubella, rubiola, smallpox, tuberculosis
2. General concepts of immunity (2 hours)
  - a. Active, passive
  - b. Natural, acquired
  - c. Importance of immunization in the control of communicable diseases
3. Oral, intradermical and subcutaneous immunization techniques
4. Standards for vaccination in the country (4 hours)
  - a. Immunization plans by age groups
  - b. Storage and transport of vaccines
  - c. Registration and information
    - immunization card (for the child)
    - immunization control cards (for the health center)
    - monthly report on immunization

VIII. EPIDEMIOLOGICAL SURVEILLANCE OF COMMUNICABLE DISEASES..... 23 hours

A. Concepts of Epidemiological Surveillance

1. Communicable diseases and modes of transmission
2. General measures for prevention and control of disease
3. Importance of surveillance
4. Notification of communicable diseases

B. National Malaria Eradication Program

1. Generalities about malaria (1 hour)
  - a. Malaria as an illness
  - b. Malaria in the country
2. Malaria eradication programs in Panama (1 hour)
  - a. Program status; activities being undertaken
3. Taking of blood samples (5 hours)
  - a. Required equipment and material
  - b. Technique for taking the sample
  - c. Completion of related forms
  - d. Collection and supply of samples
4. Treatment for malaria (4 hours)
  - a. Types
  - b. Schemes
5. Applied sanitary education (2 hours)
6. Practice in specimen taking (8 hours)
  - a. In class
  - b. In school or a selected community

IX. CONCEPTS OF ORGANIZATION AND EDUCATION IN COMMUNITY HEALTH .....

- A. Participation of para-health personnel in community organization
1. Rights and duties of health
  2. Health committees
  3. Organization
  4. Seminars on health and the community
  5. Community participation in health programs

X. PROGRAM ADMINISTRATION..... 8 hours

- A. Rural health program in relation to integrated health system programs
- B. Supervision of activities; lines of authority
- C. Information System
- D. Rules and regulations

INTEGRATED HEALTH SYSTEM

DEPARTMENT OF ORGANIZATION AND COMMUNITY HEALTH EDUCATION  
RURAL HEALTH PROGRAM  
PHARMACEUTICAL REQUIREMENTS FOR HEALTH POSTS  
BY SEMESTER

DESCRIPTION	UNIT	UNITS *		PRICES**	
		Per Post	TOTAL	UNIT	TOTAL
Expectorante Infantil	Gallon	2	72	2.16	155.52
Jarabe Antipirético (Pirezín)	Box	1	36	17.28	622.08
Antidiarréico (Kaopectate)	"	1	36	18.72	673.92
Antitusivo (Thiocoi)	Gallon	2	72	3.25	234.00
Solución contra Caraches (Alcohol Salicílico)	"	1	36	2.07	74.52
Jarabe Antihistamínico (Jarabe Benadryl)	"	2	72	1.31	94.32
Jarabe de Belladona con Fenobarbital	Box	1	36	14.40	518.40
Loción de Calamina	Gallon	1	36	1.54	55.44
Tónico Ferruginoso (Cofron)	Box	1	36	40.32	1,451.52
Solución de Violeta de Genciana	Gallon	1	36	1.32	47.52
Mixtura Hepática (Pepsiken)	"	1	36	2.35	84.60
Elixir Triplebromuro	"	1	36	2.08	74.88
Gotas para los Oídos (Otoalmin)	"	1	36	5.81	209.16
Jarabe Multivitaminas Infantil (Decavitaminas)	Box	2	72	17.28	1,244.16
Jarabe de Piperazina	"	1	36	28.80	1,036.80
Cápsulas Antiasmáticas	thousand	1	36	3.54	127.44
Tabletas Aspirina Infantil (0.25 g)	"	2	72	3.76	270.72
Tabletas Aspirina Adultos (500 mg)	"	2	72	29.29	2,108.88
Tabletas de Sulfato Ferroso (0.25 g)	"	4	144	1.75	252.00
Tabletas de Hidróxido de Aluminio	"	1	36	11.63	418.68
Tabletas Multivitaminas-Adultos	"	2	72	6.40	460.80
Tabletas Triple Sulfá (500 mg)	"	3	108	5.40	583.20
Cápsulas de Vitamina A (25,000 U.I.)	"	2	72	11.52	829.44
Cápsulas de Vitamina D	"	4	144	2.71	390.24
Tabletas de Cloruro de Tiamina	"	4	144	4.90	705.60
Cápsulas Sorboquel-frasco de 18 past.	Bot.	10	360	1.46	525.60
unguento-Dermatitis (Sulfatiazol al 5%)	Lbs.	5	180	0.92	165.60
Pasta Lanúgena-tubos de 50g.	Tubes	50	1800	0.76	1,368.00
Unguento Oftálmico de Cloramfenicol-5g.	"	50	1800	1.01	1,818.00
Antiparasitario de amplio Espectro (Mintezol)	Bot.	50	1800	0.56	1,008.00
Suero Antiofidico Polivalente-10cc.	amp.	10	360	3.87	1,393.20
Adrenalina en Agua-1cc	"	12	432	0.13	56.16
Sulfato de Atropina-1cc	"	15	540	0.10	54.00
<b>TOTAL</b>					<b>19,112.40</b>

\* Estimates subject to change upon verification of the demand.

\*\* Quotations from Caja de Seguro Socia.

SISTEMA INTEGRADO DE SALUD

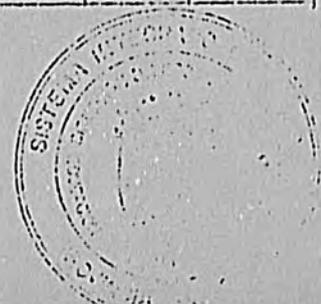
DIVISION DE ORGANIZACION Y EDUCACION DE SALUD EN LA COMUNIDAD

PROGRAMA DE SALUD RURAL

MEDICAMENTOS NECESARIOS  
POR SEMESTRE PARA LOS PUESTOS DE SALUD

NOMBRE Y TIPO DE MEDICAMENTO	UNIDAD	UNIDAD **		PRICES **	
		POR PUESTO	TOTAL	POR UNIDAD	TOTAL
ANTIPYRETICO INFANTIL	galón	2	72	2.16	155.52
JARABE ANTIPYRETICO (PIMBZIN)	caja	1	36	17.28	622.08
ANTIDIARRHEICO (KAOPECTATE)	"	1	36	18.72	673.92
ANTIDIPTICO (DHIACOL)	galón	2	72	3.25	234.00
SOLUCION CONTRA CARACHES (ALCOHOL SALICILICO)	"	1	36	2.07	74.52
JARABE ANTIMISTAMINICO (JARABE BENADRYL)	"	2	72	1.31	94.32
JARABE DE BELLAZONA CON FENOBARBITAL	caja	1	36	14.40	518.40
SOLUCION DE SALSINA	galón	1	36	1.54	55.44
UNICO FARM GINCO (CUFRON)	caja	1	36	40.32	1451.52
SOLUCION DE VIOLETA DE GENCIANA	galón	1	36	1.32	47.52
ANTIBIOTICO (PEPSIKEN)	"	1	36	2.35	84.60
EXTRACTO DE PLANTAINO	"	1	36	2.08	74.88
OTITAS PARA LOS OIDOS (OTOCALMIN)	"	1	36	5.81	209.16
JARABE MULTIVITAMINAS INFANTIL (DECAVITAMINAS)	caja	2	72	17.28	1244.16
JARABE DE PIPERAZINA	"	1	36	28.80	1036.80
PASTILLAS ANTIDIASMATICAS	millar	1	36	3.54	127.44
PASTILLAS ASPIRINA INFANTIL (0.25 g)	"	2	72	3.75	270.72
PASTILLAS ASPIRINA ADULTOS (500 mg)	"	2	72	29.29	2108.88
PASTILLAS DE SULFATO FERROSO (0.25 g)	"	4	144	1.75	252.00
PASTILLAS DE HIDROXIDO DE ALUMINIO	"	1	36	11.63	418.68
PASTILLAS MULTIVITAMINAS -ADULTOS-	"	2	72	6.40	460.80
PASTILLAS TRIPLE SULFA (500 mg)	"	3	108	5.40	583.20
PASTILLAS DE VITAMINA A (25,000 U.I.)	"	2	72	11.52	829.44
PASTILLAS DE VITAMINA D	"	4	144	2.71	390.24
PASTILLAS DE CLORURO DE TIAMINA	"	4	144	4.90	705.60
PASTILLAS BORBOQUEL -frasco de 18 pastillas-	frascos.	10	360	1.46	525.60
UNGUENTO PARA DERMATITIS (SULFATIAZOL AL 5%)	lbs.	5	180	0.92	165.60
PASTA TRANCELA - tubos de 50 g -	tubos	50	1800	0.76	1368.00
UNGUENTO OPALMICO DE CLORAMPENICOL -tubos de 5 g -	"	50	1800	1.01	1818.00
ANTIPARASITARIO DE AMPITO ESPECTRO (MENZEOL) -fco. 15 cc-	frascos.	50	1800	0.56	1008.00
SUERO ANTIDIFTERICO POLIVALENTE -ampolla de 10cc-	amp.	10	360	3.87	1393.20
ADRENALINA EN AGUA -ampolla de 1cc-	"	12	432	0.13	56.16
SULFATO DE ATROPINA -ampolla de 1cc-	"	15	540	0.10	54.00
TOTAL					19,112.40

\* Cálculos sujetos a cambios, previa comprobación de la demanda  
\*\* Cotizados en la Caja de Seguro Social



SISTEMA INTEGRADO DE SALUD  
Provincia de Colón

DIVISION DE  
ORGANIZACION Y EDUCACION EN SALUD DE LA COMUNIDAD

PROGRAMA DEL CURSO  
PARA LA FORMACION DE AYUDANTES DE SALUD

I.- ORIENTACION ..... 6 Horas

A. Programa del Curso (2 Hrs)

1. Objetivos
2. Duración
3. Horarios
4. Personal Docente
5. Clases Teóricas
6. Prácticas
7. Campos Clínicos
8. Evaluación
9. Plan del Curso

B. Nociones sobre aprendizaje (2 Hrs)

1. Cómo tomar notas
2. Reglas prácticas para estudiar

C. Nociones de Etica (2Hrs)

1. Definición de Etica
2. Hábitos disciplinarios
3. Actitud con pacientes, familiares y otros grupos
4. Características y comportamiento del ayudante

II.- CONOCIMIENTOS GENERALES..... 28 Horas

A! Introducción a la Salud (2 Hrs)

1. Concepto de Salud
2. Organización y Política del Ministerio de Salud y de la Caja de Seguro Social
3. Problemas de salud de Panamá
4. Programas de Salud del país

E. Higiene General (14 Hrs)

1. Salud y Enfermedad (1 Hr)
2. Hábitos Higiénicos (1 HR)
  - a. Higiene corporal
  - b. Higiene de la menstruacion
  - c. Vestido, sueño, reposo, ejercicio

3. Alimentación y su relación con la salud (8 Hrs)
  - a. Grupos básicos de la alimentación
  - b. Dieta balanceada
  - c. Necesidades nutricionales del individuo
  - d. Alimentación en el primer año de vida
  - e. Alimentación en el embarazo
  - f. Participación del Ayudante de Salud en la solución de los problemas nutricionales
4. Higiene Mental (4 Hrs)
  - a. Definición
  - b. Cualidades de las personas mentalmente sanas
  - c. Necesidades básicas del individuo

C. Nociones sobre Epidemiología (6 Hrs)

1. Definición y terminología
2. Agentes causales de las enfermedades
3. Fuentes y vías de infección
4. Vías de entrada y salida del agente
5. Medidas de control de las enfermedades

D. Nociones sobre Crecimiento y Desarrollo (6 Hrs)

1. Lactancia
2. Pre-escolar
3. Escolar
4. Adolescencia
5. Edad adulta
6. Vejez

III.- SANEAMIENTO AMBIENTAL ..... 30 Horas

A. Introducción al Saneamiento Ambiental (2 Hrs)

1. Definición de Salud (OMS)
2. Concepto de Saneamiento Ambiental
3. Enfermedades relacionadas con el Saneamiento
4. Aspectos básicos del Saneamiento Ambiental

B. Control de los Abastos de Agua (5 Hrs)

1. Qué es un abasto (definición)
2. Concepto de Agua Potable
3. La Contaminación del Abasto
  - a. Peligros que encierra
  - b. Cómo evitarla con medidas simples
  - c. Cómo se establece
4. Abastos de agua en las áreas rurales. Análisis de ellas bajo el concepto de salud
  - a. Pozos superficiales
  - b. Ríos y Quebradas
  - c. Agua de lluvias

5. Soluciones a los problemas de abastos de agua en las áreas rurales
  - a. Acueductos rudimentarios
  - b. Pozo tubular perforado
  - c. Pozo excavado protegido
6. Responsabilidad del Ayudante de Salud ante el problema de agua
  - a. Mantenimiento adecuado de los abastos
  - b. Orientación al público en el cumplimiento de las recomendaciones sanitarias
  - c. Participación en obras destinadas a solucionar el problema
  - d. Problemas que deben ser referidos al inspector
7. Discusión de Película: Agua Amiga o Enemiga y/o Una gota de Agua
8. Práctica:
  - a. Visita a distintos tipos de abastos no sanitarios
  - b. Visita a acueductos, pozos perforados y brocales en construcción o en funcionamiento

C. Control de Excretas (5 Hrs)

1. Las excretas humanas como fuente de infección
2. Importancia de la disposición adecuada de excretas
3. Soluciones al problema de la disposición adecuada de las excretas en las áreas rurales
  - a. Letrinas
    - materiales necesarios para su construcción
    - recursos de la comunidad útiles para su construcción (grava, arena, madera, etc)
    - cómo se construye: ubicación, dimensiones del hueco, piso y ca seta
  - b. Tanque séptico
4. Buen uso y mantenimiento del dispositivo existente
5. Responsabilidades del Ayudante de Salud ante el problema
  - a. Orientación a los interesados en la construcción del dispositivo
  - b. Educación a la comunidad sobre uso y mantenimiento del dispositivo
  - c. Participación en actividades comunales para solucionar el problema
6. Discusión de película sobre el tema
7. Práctica:
  - a. Demostración sobre construcción de letrinas
  - b. Visitas a dispositivos adecuados y en construcción

- D. Control de Basuras (4 Hrs)
1. Importancia sanitaria de las basuras
  2. Sistemas rurales de disposición de basuras
    - a. Adecuados
      - incineración
      - enterramiento
      - vertederos
    - b. Inadecuados
  3. Control de las basuras intradomiciliariamente
  4. Participación del Ayudante de Salud frente al problema
  5. Discusión de Película: Basuras
  6. Práctica:
    - a. Construcción de un tinoco para la casa
    - b. Visita a crematorios, gallineros, etc.
- E. Saneamiento de la Vivienda (5 Hrs)
1. Importancia del problema desde el punto de vista de salud
  2. Condiciones sanitarias apropiadas de la vivienda y sus alrededores
    - a. Permiso de construcción
    - b. Ubicación
    - c. Distribución del interior
    - d. Materiales convenientes para piso, paredes, techos
    - e. Limpieza y desagües del patio
    - f. Dispositivo sanitario para excretas
    - g. Dispositivo sanitario para el control de basuras
    - h. Abasto de agua para la vivienda
  3. Labor del Ayudante de Salud frente al problema
    - a. Orientación a los interesados para el cumplimiento de aspectos relativos a la vivienda
    - b. Vigilancia: limpieza de patios, utilización de la letrina, etc.
    - c. Aviso y referencia de problemas al inspector del sector
  4. Práctica:
    - a. Preparación de croquis para una casa
    - b. Conocimiento de la hoja de inspección sanitaria de edificios
- F. Control de Alimentos (6 Hrs)
1. Importancia socio-económica y sanitaria de los alimentos
  2. Peligros del Alimento contaminado

3. Higiene de la manipulación de alimentos
4. Condiciones sanitarias que deben reunir los establecimientos de alimentos
  - a. Aspectos más importantes en el acondicionamiento del local
  - b. Conservación, limpieza y presentación del local
  - c. Permiso sanitario para operar
5. Responsabilidades de los Manipuladores de Alimentos
  - a. Qué es un manipulador. Su importancia para la salud de la sociedad
  - b. Certificado de Salud
  - c. Uso de redecilla o gorra y delantal
  - d. Aseo personal
6. Control de Ventas Ambulantes
7. Desinfección y protección de utensilios y equipo en restaurantes y en la casa
8. Labor del Ayudante de Salud en este aspecto
  - a. Supervisión de permisos y certificados
  - b. Vigilancia sobre el cumplimiento de las disposiciones sanitarias vigentes
  - c. Aviso y referencia de problemas
9. Discusión de película sobre el tema
10. Práctica:
  - a. visita a mataderos, carnicerías, abarroterías, restaurantes, etc.

G. Control de Artrópodos y Roedores (3 Hrs)

1. Qué son artrópodos. Qué son roedores
2. Importancia sanitaria y económica de los artrópodos y roedores. Repercusión sobre la salud pública
3. Medidas de Control y Exterminio de fauna nociva
  - a. Mosca doméstica
  - b. Cucarachas
  - c. Mosquitos
  - d. Pulgas y piojos
  - e. Chinchas
  - f. Ratas y ratones
4. Cómo enfrenta la División de Saneamiento Ambiental este problema
5. Participación del Ayudante de Salud en esta lucha
6. Discusión de Película relacionada con el tema
7. Práctica:
  - a. Colocación de bollos contra ratas y ratones. Precauciones que deben tomarse
  - b. Control de criaderos de fauna nociva

IV.- EDUCACION PARA LA SALUD..... 18 Horas

A. Qué es Educación para la Salud (2 Hrs)

1. Definición
2. Filosofía y Objetivos
3. Importancia de la Educación
4. Enfoque educativo de los problemas de salud

B! Algunos métodos educativos de uso práctico (8 Hrs)

1. Charlas
2. Demostraciones
3. Entrevistas
4. Encuestas
5. Práctica:
  - a. Dar charlas y efectuar demostraciones
  - b. Participar en una encuesta

C. Planificación de Actividades y Programas de Salud

1. Detección de problemas
2. Análisis de las prioridades
3. Inventario de los recursos
4. Plan de acción
5. Evaluación

D. Relaciones Humanas y Conducta Sanitaria del Ayudante de Salud (4 Hrs)

1. Concepto de Relaciones Humanas
2. La comunicación en las relaciones humanas
3. La percepción en las relaciones humanas
4. Algunas reglas prácticas para conservar las buenas relaciones humanas
5. El comportamiento del Ayudante de Salud como imagen para la comunidad

V.- ATENCION GENERAL DE ENFERMERIA .....

A. Concepto de Enfermería

1. Qué es Enfermería
2. Niveles del personal de enfermería
3. Ubicación del Ayudante de Salud en el Servicio de Enfermería
4. Funciones del Ayudante de Salud y sus respectivas responsabilidades legales

B! Asepsia Médico-Quirúrgica.

1. Definición y principios
2. Métodos de esterilización y desinfección
3. Cuidado y preparación de equipo y material

C. ATENCIÓN Directa del Enfermo

1. Introducción
  - a. Procedimientos de atención directa
2. Conceptos básicos
  - a. limpio
  - b. estéril
  - c. sucio

- d. contaminado
- e. desinfectado
- 3. Lavado de manos
- 4. Desinfección por ebullición. Manejo de la pinza auxiliar
- 5. Técnica de la Inyección
  - a. Medicamentos inyectables: presentación, dosificación
  - b. Equipo: tipos de jeringuillas y agujas, afilado
  - c. Técnicas de inyectar: intradérmica, subcutánea, intramuscular
- 6. Control de signos vitales
  - a. Temperatura: oral, rectal, axilar; técnicas, equipo; lectura e informes; desinfección de los termómetros
  - b. Pulso
  - c. Presión Arterial: equipo; conservación y uso del equipo; técnica; lectura
  - d. Respiración
- 7. Control de peso y talla. Gráficas
- 8. Participación del Ayudante de Salud en la Consulta Médica
  - a. Preparación de pacientes para el examen físico
- 9. Participación en la recolección de muestras para pruebas diagnósticas
  - a. Orina
  - b. Heces
  - c. Esputo
- 10. Participación en la aplicación de los tratamientos
  - a. Aplicación de calor y frío
    - Bolsas de agua tibia
    - Bolsas de hielo
    - Compresas frías y tibias
  - b. Administración de medicamentos
    - Conocimientos generales sobre medicamentos: presentación; dosificación; interpretación de recetas; despacho y administración de medicinas; recomendaciones; manual de medicamentos
  - c. Curación simple
    - Equipo
    - Limpieza del área
    - Aplicación de medicamentos
    - Apósitos y vendajes
    - Limpieza del equipo

VI.- PRIMEROS AUXILIOS..... 40 Horas

A. Generalidades (1 Hr)

- 1. Definición de Primeros Auxilios
- 2. Aspectos importantes que deben considerarse al prestar los primeros auxilios

- E. Heridas contusas, cortantes y punzantes (1 Hr)
  - 1. Definición
  - 2. Atención de heridos
- C. Hemorragias (2 Hrs)
  - 1. Definición. Tipos
  - 2. Puntos de presión
  - 3. Aplicación y manejo de torniquetes
- D. Shock (1 Hr)
  - 1. Definición. Causas. Peligros
  - 2. Atención del paciente en estado de shock
- F. Fracturas, Luxaciones y Esguinces (6 Hrs)
  - 1. Definiciones. Tipos
  - 2. Inmovilización. Vendajes
  - 3. Transporte
- F. Quemaduras (2 Hrs)
  - 1. Tipos de quemaduras
  - 2. Tratamiento en quemadas leves
  - 3. Actitud ante pacientes con quemadas graves
- G. Asfixia (3 Hrs)
  - 1. Tipos de asfixia
  - 2. Atención al paciente, según tipo
  - 3. Respiración Artificial
- H. Cuerpos Extraños (1 Hr)
  - 1. Cuidados que deben tenerse al extraer cuerpos extraños
- I. Mordeduras y Picaduras de Animales (5 Hrs)
  - 1. Mordeduras de serpientes. Tratamientos. Prueba
  - 2. Atención de pacientes picados por avispas, alacranes, etc
  - 3. Atención de pacientes mordidos por perros, gatos, monos, ratas, etc.
    - a. Cuidados
    - b. Tratamiento
- J. Intoxicaciones (3 Hrs)
  - 1. Alimentarias: Definición. Síntomas, Tratamiento
  - 2. Por plaguicidas: Definición, Síntomas. Tratamiento
- K. En Casos de Enfermedades (15 Hrs)
  - 1. Generalidades
  - 2. Signos y síntomas de enfermedades: fiebre, tcs, vómitos, escalofríos, diarrea, ataques, dolor de cabeza, estreñimiento
  - 3. Enfermedades del Aparato Respiratorio
    - a. Asma: Síntomas. Aspecto del enfermo. Tratamiento
    - b. Bronquitis: Síntomas. Aspecto del enfermo, Tratamiento

4. Enfermedades del Aparato Digestivo
  - a. Gastroenteritis: Síntomas. Aspecto general del enfermo. Tratamiento.
  - b. Enteroparasitosis: Síntomas. Aspecto general del enfermo. Tratamiento
5. Enfermedades de la Piel
  - a. Infecciones: Síntomas. Aspecto general del enfermo. Tratamiento
  - b. Sarna: Síntomas. Aspecto general del enfermo. Tratamiento
6. Accidentes por sueros; prueba de sensibilidad

VII.- SALUD MATERNO INFANTIL..... 42 Horas

- A. Generalidades
  1. Problemas de la salud materno-infantil en el país
  2. Componentes y actividades del programa
- B. Nociones sobre Anatomía y Fisiología de los órganos de la reproducción. (3 Hrs)
- C. Embarazo y Cuidados Pre-natales (4 Hrs)
  1. Signos y síntomas de embarazo
  2. Ficha y control periódico
  3. Gestantes de alto riesgo. Referencia
  4. Educación para el parto
- D. Atención del Parto (6 Hrs)
  1. Lavado de manos
  2. Cuidados de la labor de parto
  3. Ligadura del cordón
  4. Atención posterior de madre e hijo
- E. Cuidado del Puerperio (2 Hrs)
  1. Higiene
  2. Referencia para control médico
  3. Alimentación de la puérpera
- F. Cuidado del Recién Nacido (4 Hrs)
  1. Características del Recién Nacido
  2. Cuidados inmediatos y observación de anomalías. Valoración AFGAR
  3. Curación umbilical
  4. Baño del Recién Nacido
  5. Alimentación al pecho materno
  6. Cuidados inmediatos del niño prematuro
    - a. Improvisación de una incubadora
- G. Atención del Niño Sano (8 Hrs)
  1. Alimentación
    - a. Lactante: pecho materno, mamadera, otros
    - b. Pre-escolar
    - c. Escolar

2. Evaluación del Estado Nutricional. Gráficas
3. Higiene
4. Crecimiento y Desarrollo
  - a. Lactantes: observación. Ficha y gráfica de peso y talla
  - b. Pre-escolar: observación. Ficha y gráfica de peso y talla
  - c. Escolares: control de peso y talla; gráficas y expedientes

V. Planificación Familiar y Control del Cáncer (4 Hrs)

1. Ventajas de la Planificación Familiar
2. Paternidad Responsable
3. Métodos Anticonceptivos: clasificación, acción
4. Detección del cáncer ginecológico: Papanicolau
5. Participación del Ayudante de Salud en el Programa de Planificación Familiar

I. Vacunaciones (10 Hrs)

1. Orientación sobre enfermedades prevenibles: polio, difteria, tosferina, tétanos, sarampión, viruela, tuberculosis (2 Hrs)
2. Nociones generales sobre inmunidad (2 Hrs)
  - a. activa, pasiva
  - b. natural, adquirida
  - c. importancia del programa de vacunación en el control de las enfermedades transmisibles
3. Técnicas de vacunación oral, intradérmica, subcutánea (2 Hrs)
4. Normas de vacunación en el país (4 Hrs)
  - a. Esquema de vacunación por edades
  - b. Almacenamiento y transporte de vacunas
  - c. Registro e información
    - tarjeta de vacunación (para el niño)
    - tarjeta de control de vacunación (para el Centro de Salud)
    - Informe mensual de vacunación

VIII.- VIGILANCIA EPIDEMIOLÓGICA DE ENFERMEDADES TRANSMISIBLES..... 23 Horas

A. Nociones sobre vigilancia epidemiológica (2 Hrs)

1. Enfermedades transmisibles. Modos de transmisión
2. Medidas generales de prevención y control de enfermedades
3. Importancia de la vigilancia epidemiológica
4. Notificación de enfermedades transmisibles

B. Programa Nacional de Erradicación de la Malaria

1. Generalidades sobre malaria (1 Hr)
  - a. La malaria como enfermedad
  - b. La malaria en el país
  - c. La malaria en Colón

2. Programa de erradicación de la malaria en Panamá y en la Provincia de Colón (1 Hr)
  - a. Estado del programa en Colón; actividades que se desarrollan en cada distrito
3. Toma de la Muestra de Sangre (5 Hrs)
  - a. Equipo y materiales necesarios
  - b. Técnica para la toma de la muestra
  - c. Llenado de los formularios respectivos.
  - d. Sistema de abastecimiento y recolección de muestras
4. Tratamiento contra la malaria (4 Hrs)
  - a. Tipos
  - b. Esquemas
5. Educación Sanitaria aplicada al programa (2 Hrs)
6. Práctica de la toma de muestras (8 Hrs)
  - a. En la sala de clases
  - b. En escuela o comunidad seleccionada

IX.- NOCIONES SOBRE EL PROGRAMA DE ORGANIZACION Y EDUCACION EN SALUD DE LA COMUNIDAD..... 8 Horas

- A. Participación de l Ayudante de Salud en la organizae ción de la comunidad.
  1. Derecho y Deberes de Salud
  2. Comités de Salud
  3. Sectorización
  4. Seminarios de Salud y Comunidad
  5. Participación de la comunidad en los programas de salud

X.- ADMINISTRACION DEL PROGRAMA..... 8 Horas

- A. Ubicación del Programa de Salud Rural en el contexto de los programas del Sistema Integrado de Salud
- B. Supervisión de Actividades. Líneas de autoridad
- C. Sistema de Información
- D. Reglamentación

Table No.

COMPARATIVE DEMOGRAPHIC CHARACTERISTICSPANAMA - OTHER CENTRAL AMERICAN COUNTRIES

1971 - 1975

	<u>Panama</u>		<u>Costa Rica</u>		<u>Nicaragua</u>		<u>Honduras</u>		<u>El Salvador</u>		<u>Guatemala</u>	
	<u>71</u>	<u>75</u>	<u>71</u>	<u>75</u>	<u>71</u>	<u>75</u>	<u>71</u>	<u>75</u>	<u>71</u>	<u>75</u>	<u>71</u>	<u>75</u>
Population (Million)	1.5	1.7	1.9	2.0	2.1	2.3	2.8	3.0	3.6	4.1	5.3	6.1
Birth Rate (per 1000)	37	31*	45	33	46	48	49	49	47	42	42	42
Death Rate (per 1000)	7.1	5.3	8	6	16	14	16	14	13	11	13	14
Natural Increase (% An. Rate)	3.0	2.6*	3.8	2.8	3.3	3.3	3.4	3.5	3.4	3.1	2.9	2.9
Population (under 15-%)	43	43	48	42	48	48	51	47	45	46	46	44
Median Age	18	18	-	18	-	16	-	17	-	17	-	18
Life Expectancy	65	67	-	68	-	53	-	54	-	58	-	53
Population density (persons Km <sup>2</sup> )	19	22	-	41	-	18	-	27	-	196	-	56
Per Capita Gross National Product	880		630		470		320		340		420	

Source: 1975 World Population Data Sheet of the Population Reference Bureau, Inc.

\* 1974 data

PANAMA

Table No.

Table 1 of 2

POPULATION BY AREA AND PROVINCE

(000's)

	<u>1960</u>		<u>1970</u>		<u>1974</u>		<u>Average % Annual Change</u>	
	<u>No.</u>	<u>% Tot.</u>	<u>No.</u>	<u>% Tot.</u>	<u>No.</u>	<u>% Tot.</u>	<u>1960-70</u>	<u>1970-74</u>
<u>TOTAL</u>	<u>1076</u>	<u>100</u>	<u>1434</u>	<u>100</u>	<u>1618</u>	<u>100</u>	<u>2.9</u>	<u>3.1</u>
Urban	446	41.4	682	47.6	796	49.2	4.4	4.0
Rural	630	58.6	752	52.4	822	50.8	1.8	2.3
Principal cities 1/	356	33.1	524	36.5	611	37.8	3.9	3.9
Rest of the country	720	66.9	910	63.5	1007	62.2	2.4	2.8
<u>PANAMA</u>	<u>372</u>	<u>34.6</u>	<u>580</u>	<u>40.4</u>	<u>688</u>	<u>42.5</u>	<u>4.6</u>	<u>4.4</u>
Urban	289	26.9	458	31.9	546	33.7	4.7	4.5
Rural	83	7.7	122	8.5	142	8.8	3.9	3.9
<u>CHIRIQUI</u>	<u>188</u>	<u>17.5</u>	<u>237</u>	<u>16.5</u>	<u>261</u>	<u>16.1</u>	<u>2.3</u>	<u>2.5</u>
Urban	43	4.0	62	4.3	71	4.4	3.7	3.4
Rural	145	13.5	175	12.2	190	11.7	2.5	2.1
<u>VERAGUAS</u>	<u>132</u>	<u>12.3</u>	<u>152</u>	<u>10.6</u>	<u>164</u>	<u>10.1</u>	<u>1.4</u>	<u>1.5</u>
Urban	12	1.1	19	1.3	22	1.4	4.7	3.7
Rural	120	11.2	133	9.3	142	8.7	1.0	1.6
<u>COLON</u>	<u>105</u>	<u>9.8</u>	<u>135</u>	<u>9.4</u>	<u>149</u>	<u>9.2</u>	<u>2.5</u>	<u>2.5</u>
Urban	59	5.5	70	4.9	74	4.6	1.7	1.4
Rural	46	4.3	65	4.5	75	4.6	3.5	3.6

Table No.

PANAMAPOPULATION BY SIZE OF COMMUNITY

SIZE	1 9 6 0				1 9 7 0			
	<u>Place</u>	<u>(%)</u>	<u>Pop.</u> <u>(000's)</u>	<u>%</u>	<u>Place</u>	<u>%</u>	<u>Pop.</u> <u>(000's)</u>	<u>%</u>
<u>TOTAL</u>	<u>8,595</u>	<u>100.0</u>	<u>1,076</u>	<u>100.0</u>	<u>9,313</u>	<u>100.0</u>	<u>1,428</u>	<u>100.0</u>
Less than 50	5,669	66.0	105	9.8	5,897	63.3	109	7.7
50 - 99	1,341	15.6	95	8.8	1,530	16.5	108	7.6
100 - 499	1,391	16.2	276	25.7	1,597	17.2	321	22.4
500 - 999	124	1.4	83	7.8	187	2.0	125	8.8
1,000 - 4,999	61	0.7	105	9.8	88	0.9	160	11.2
5,000 - 9,999	4	0.1	31	2.8	6	0.1	39	2.8
10,000 - 24,999	3	0.0	47	4.4	3	0.0	39	2.7
25,000 - 99,999	1	0.0	60	5.5	4	0.0	178	12.4
100,000 or more <sup>1/</sup>	1	0.0	274	25.4	1	0.0	349	24.4

<sup>1/</sup> Panama City

Source: Estadística y Censo

PANAMA

	<u>1960</u>		<u>1970</u>		<u>1974</u>		<u>% Annual Change</u>	
	<u>No.</u>	<u>% Tot.</u>	<u>No.</u>	<u>% Tot.</u>	<u>No.</u>	<u>% Tot.</u>	<u>1960-70</u>	<u>1970-74</u>
<u>COCLE</u>	<u>93</u>	<u>8.6</u>	<u>118</u>	<u>8.2</u>	<u>131</u>	<u>8.1</u>	<u>2.4</u>	<u>2.1</u>
Urban	18	1.7	26	1.8	30	1.9	3.7	3.6
Rural	75	6.9	92	6.4	101	6.2	2.0	2.4
<u>HERRERA</u>	<u>62</u>	<u>5.8</u>	<u>73</u>	<u>5.1</u>	<u>78</u>	<u>4.8</u>	<u>1.7</u>	<u>1.7</u>
Urban	12	1.1	23	1.6	26	1.6	6.7	3.2
Rural	50	4.7	50	3.5	52	3.2	0.0	1.0
<u>LOS SANTOS</u>	<u>71</u>	<u>6.6</u>	<u>72</u>	<u>5.0</u>	<u>73</u>	<u>4.5</u>	<u>0.1</u>	<u>0.3</u>
Urban	7	0.7	8	0.6	8	0.5	1.3	0.0
Rural	64	5.9	64	4.4	65	4.0	0.0	0.4
<u>BOCAS DEL TORO</u>	<u>33</u>	<u>3.1</u>	<u>43</u>	<u>3.0</u>	<u>50</u>	<u>3.1</u>	<u>2.6</u>	<u>3.9</u>
Urban	6	0.6	15	1.0	18	1.1	9.6	4.7
Rural	27	2.5	28	2.0	32	2.0	0.4	3.4
<u>DARIEN</u>	<u>20</u>	<u>1.9</u>	<u>23</u>	<u>1.6</u>	<u>24</u>	<u>1.5</u>	<u>1.4</u>	<u>1.1</u>
Urban	-	0.0	2	0.1	2	0.1	*	0.0
Rural	20	1.9	21	1.5	22	1.4	0.5	1.2

Note: Urban Sector consists of all places with over 1,500 population and certain normal urban facilities.

\* In 1960 the Province of Darien did not have any communities which met the minimum urban requirements.

1/ The cities of Panama, Colon and David.

Source: Estadística y Censo

PANAMA

Table No.

POPULATION - DISTRIBUTION BY SEX, AREA AND AGE

(000's)

	1960		1970		1974		Average % Change	
	No.	% Total	No.	% Total	No.	% Total	1960-70 Annual Rate	1970-74 Annual Rate
TOTAL	<u>1075</u>	<u>100.0</u>	<u>1434</u>	<u>100.0</u>	<u>1618</u>	<u>100.0</u>	<u>2.9</u>	<u>3.1</u>
MALE	<u>546</u>	<u>50.8</u>	<u>727</u>	<u>50.7</u>	<u>820</u>	<u>50.7</u>	<u>2.9</u>	<u>3.1</u>
Urban	<u>215</u>	<u>20.0</u>	<u>330</u>	<u>23.0</u>	<u>385</u>	<u>23.8</u>	<u>4.4</u>	<u>3.9</u>
Under 20	106	9.9	167	11.6	195	12.0	4.6	3.9
20 - 39	60	5.6	95	6.6	110	6.8	4.7	3.7
40 - 59	36	3.3	50	3.5	59	3.6	3.3	4.3
60 or more	13	1.2	18	1.3	21	1.3	3.3	3.9
Rural	<u>331</u>	<u>30.8</u>	<u>397</u>	<u>27.7</u>	<u>435</u>	<u>26.9</u>	<u>1.8</u>	<u>2.3</u>
Under 20	169	15.7	221	15.4	242	15.0	2.7	2.3
20 - 39	88	8.2	98	6.8	108	6.7	1.1	2.5
40 - 59	51	4.7	55	3.8	60	3.7	0.8	2.2
60 or more	23	2.1	23	1.6	25	1.5	0.0	2.1
FEMALE	<u>529</u>	<u>49.2</u>	<u>707</u>	<u>49.3</u>	<u>798</u>	<u>49.3</u>	<u>2.9</u>	<u>3.1</u>
Urban	<u>231</u>	<u>21.5</u>	<u>352</u>	<u>24.6</u>	<u>411</u>	<u>25.4</u>	<u>4.3</u>	<u>3.9</u>
Under 20	112	10.4	174	12.1	204	12.6	4.5	4.0
20 - 39	68	6.3	104	7.2	121	7.5	4.3	3.9
40 - 59	36	3.3	52	3.6	60	3.7	3.8	3.6
60 or more	15	1.4	22	1.5	26	1.6	3.9	4.3
Rural	<u>298</u>	<u>27.7</u>	<u>355</u>	<u>24.7</u>	<u>387</u>	<u>23.9</u>	<u>1.8</u>	<u>2.2</u>
Under 20	160	14.9	206	14.4	225	13.9	2.6	2.2
20 - 39	76	7.1	87	6.1	95	5.9	1.4	2.2
40 - 59	42	3.9	44	3.1	47	2.9	0.5	0.4
60 or more	20	1.9	18	1.3	20	1.2	(1.0)	2.7

Source: Estadística y Censo

PANAMA

DISTRIBUTION OF POPULATION BY AGE AND URBAN/RURAL SECTORS

(% TOTAL)

<u>TOTAL</u>	<u>1960</u>		<u>1970</u>		<u>1974</u>	
	<u>Urban</u> <u>100</u>	<u>Rural</u> <u>100</u>	<u>Urban</u> <u>100</u>	<u>Rural</u> <u>100</u>	<u>Urban</u> <u>100</u>	<u>Rural</u> <u>100</u>
0 - 4	14.5	17.9	14.1	18.0	14.1	18.2
5 - 9	12.4	14.3	13.1	16.8	13.1	16.9
10 - 14	11.3	11.5	11.6	12.8	11.6	12.8
15 - 19	10.6	8.7	11.3	9.1	11.3	9.0
20 - 24	8.6	7.4	9.9	7.8	9.9	7.7
25 - 29	7.2	9.1	7.8	6.5	7.8	6.5
30 - 34	6.7	5.1	6.1	5.5	6.1	5.5
35 - 39	6.1	4.5	5.2	5.1	5.2	5.0
40 - 44	5.5	3.8	4.6	4.0	4.5	4.0
45 - 49	4.7	6.6	4.1	3.5	4.1	3.4
50 - 54	3.3	2.5	3.5	3.1	3.5	3.0
55 - 59	2.5	2.0	2.9	2.4	2.9	2.4
60 - 64	2.2	3.9	2.0	1.9	2.0	1.9
65 - 69	1.6	1.0	1.5	1.4	1.5	1.4
70 - 74	1.3	0.8	1.0	0.9	1.0	0.9
75 - 79	0.8	0.5	0.7	0.5	0.7	0.5
80 - 84	0.7	0.5	0.5	0.4	0.5	0.4
85 or more	*	*	0.3	0.3	0.3	0.3

\* 80 or more.

Source: Estadística y Censo.

POPULATION - AGE DISTRIBUTION

PANAMA

(000's)

(Age Group)	1960		1970		1974		Average % Change	
	No.	% Tot.	No.	% Tot.	No.	% Tot.	1960-70 An. Rate	1970-74 An. Rate
<u>Total</u>	<u>1,062</u>	<u>100.0</u>	<u>1,434</u>	<u>100</u>	<u>1,667</u>	<u>100</u>	<u>3.0</u>	<u>3.1</u>
0 - 4	179	16.8	232	16.2	270	16.2	2.6	3.1
5 - 9	154	14.5	216	15.0	251	15.1	3.4	3.1
10-14	128	12.0	175	12.2	204	12.2	3.2	3.1
15-19	106	10.0	145	10.1	169	10.1	3.2	3.1
20-24	89	8.4	126	8.8	146	8.8	3.5	3.0
25-29	75	7.1	102	7.1	119	7.1	3.1	3.2
30-34	65	6.1	83	5.8	96	5.8	2.5	3.0
35-39	58	5.5	74	5.2	86	5.2	2.5	3.1
40-44	50	4.7	61	4.2	71	4.3	2.0	3.1
45-49	43	4.0	54	3.8	62	3.7	2.3	2.8
50-54	32	3.0	47	3.3	55	3.3	3.9	3.2
55-59	24	2.3	38	2.6	44	2.6	4.7	3.0
60-64	21	2.0	28	2.0	33	2.0	2.9	3.3
65-69	14	1.3	21	1.5	24	1.4	4.1	2.7
70 or more	24	2.3	33	2.3	38	2.2	3.2	2.9
Median age		18.3		18.2		18.3		

Source: Estadística y Censo

PANAMA

Table No.

POPULATIONBIRTH, DEATH, NATURAL GROWTH RATES  
(rates per 1000 persons)

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Total Births	41.0	37.1	37.2	36.0	33.2	32.6
Total Deaths	8.4	7.1	6.7	6.0	5.8	5.6
Total natural Growth	32.6	30.0	30.5	30.0	27.4	27.0
Urban Births	39.1	36.0	37.0	35.0	31.6	32.2
Urban Deaths	7.2	5.5	6.2	5.6	5.3	5.1
Urban Nat. Growth	31.9	30.5	30.8	29.4	26.3	27.1
Rural Births	42.4	38.1	37.4	37.0	34.6	33.0
Rural Deaths	9.2	8.4	7.1	6.3	6.3	6.0
Rural Nat. Growth	33.2	29.7	30.3	30.7	28.3	27.0
3 Principal Cities						
<u>BIRTHS</u>						
Panama	35.8	31.5	33.6	31.6	28.1	28.6
Colon	29.4	35.6	35.4	32.1	31.8	31.5
David	71.8	56.2	56.2	29.3	51.4	53.1
<u>DEATHS</u>						
Panama	6.2	5.3	6.1	5.3	5.0	4.9
Colon	9.4	7.8	8.9	7.7	7.8	7.5
David	13.4	10.4	8.3	8.9	8.7	7.7
<u>NATURAL GROWTH</u>						
Panama	29.6	26.2	27.5	26.3	23.1	23.7
Colon	20.0	27.8	26.5	24.4	24.0	24.0
David	58.4	45.8	47.9	50.4	42.7	45.4

<u>Page 2</u> <u>PROVINCES</u>	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>PANAMA</u>						
Births	38.2	35.2	35.3	34.2	31.1	31.5
Deaths	6.6	5.8	5.7	5.0	4.9	4.6
Natural Growth	31.6	29.4	29.6	29.2	26.2	26.9
<u>CHIRIQUI</u>						
Births	46.3	38.2	39.0	40.1	35.3	35.6
Deaths	7.9	7.6	6.7	6.7	6.2	6.1
Natural Growth	38.4	30.6	32.3	33.4	29.1	29.5
<u>VERAGUAS</u>						
Births	45.5	40.0	38.8	38.2	35.6	33.1
Deaths	11.4	9.2	8.8	7.1	7.4	8.0
Natural Growth	34.1	30.8	30.0	31.1	28.2	25.1
<u>COCLE</u>						
Births	42.7	41.8	40.1	38.9	37.2	33.3
Deaths	10.2	8.0	6.9	6.2	6.6	5.1
Natural Growth	32.5	33.8	33.2	32.7	30.6	28.2
<u>COLON</u>						
Births	37.4	36.6	36.6	34.4	32.9	33.1
Deaths	11.3	8.0	8.1	7.4	7.1	6.8
Natural Growth	26.1	28.6	27.0	27.0	25.8	26.3
<u>HERRERA</u>						
Births	38.6	37.2	37.5	31.7	30.2	29.9
Deaths	7.2	7.7	6.8	6.2	6.0	5.5
Natural Growth	31.4	29.5	30.7	25.5	24.2	24.4

Page 3

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>LOS SANTOS</u>						
Births	37.1	31.6	31.0	27.9	24.3	22.6
Deaths	6.5	6.6	6.3	5.5	5.8	5.7
Natural Growth	30.6	25.0	24.7	22.4	18.5	16.9
<u>BOCAS DEL TORO</u>						
Births	46.9	43.1	46.8	48.7	49.8	46.8
Deaths	12.8	9.1	8.2	6.0	6.7	6.0
Natural Growth	34.1	34.0	38.6	42.7	43.1	
<u>DARIEN</u>						
Births	39.4	40.8	41.7	35.8	34.1	33.5
Deaths	7.5	8.3	5.4	5.0	4.6	4.4
Natural Growth	31.9	32.5	36.3	30.8	29.5	29.1

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Source: Estadísticas Vitales: D.E.C.

Table No.

PANAMAGENERAL, MATERNAL, INFANT, NEONATAL, 1 TO 4 YEARS, MORTALITY RATES

Province	General Mortality Rate <u>1/</u>		Maternal Mortality Rate <u>2/</u>		Infant Mortality Rate <u>2/</u>		Neonatal Mortality Rate <u>2/</u>		1 to 4 Years Mortality Rate <u>3/</u>	
	1970	1974	1970	1974	1970	1974	1970	1974	1970	1974
<b>Total</b>	7.1	5.6	1.4	0.8	40.5	32.9	20.8	17.6	7.5	4.6
Bocas del Toro	9.1	6.0	0.5	1.5	52.0	34.3	19.6	12.8	13.5	8.7
Coclé	8.0	5.1	1.6	0.7	44.6	35.5	17.8	19.7	11.0	3.9
Colón	8.0	6.8	1.6	1.3	44.6	39.4	21.7	17.8	7.7	4.6
Chiriquí	7.6	6.1	1.9	0.5	44.6	40.5	21.5	20.8	9.1	6.4
Darién	8.3	4.4	4.3	0.0	63.6	46.9	21.6	26.8	11.2	6.5
Herrera	7.7	5.5	0.7	0.0	39.5	33.4	24.0	14.9	5.4	2.9
Los Santos	6.6	5.7	0.4	1.2	30.2	13.0	19.7	6.2	2.4	2.1
Panamá	5.8	4.6	0.8	0.7	33.7	25.6	18.7	16.4	4.4	2.0
Veraguas	9.2	8.0	2.5	1.9	47.3	45.6	27.1	20.8	12.7	11.0

1/ per 1,000 inhabitants2/ per 1,000 live births3/ per 1,000 inhabitants 1-4 years of age

Sources: Estadística Vital, D.E.C.

Table No.

PANAMAGENERAL, MATERNAL, INFANT, NEONATAL, 1 TO 4 YEARS, MORTALITYIN THE REPUBLIC OF PANAMA 1970-1974

Province	<u>General Mortality</u> 1970	<u>General Mortality</u> 1974	<u>Maternal Mortality</u> 1970	<u>Maternal Mortality</u> 1974	<u>Infant Mortality</u> 1970	<u>Infant Mortality</u> 1974	<u>Neonatal Mortality</u> 1970	<u>Neonatal Mortality</u> 1974	<u>1 TO 4 YEARS Mortality</u> 1970	<u>1 TO 4 YEARS Mortality</u> 1974
Total	10,225	9,001	72	43	2,156	1,663	1,106	889	1,400	952
Bocas del Toro	398	297	1	3	98	70	37	26	84	61
Coclé	943	663	8	3	221	144	88	80	192	77
Colón	1,080	1,017	8	6	220	186	107	84	133	88
Chiriquí	1,802	1,591	17	4	404	351	195	180	311	237
Darién	188	105	4	0	59	28	20	16	42	25
Herrera	558	427	2	0	107	74	65	33	50	29
Los Santos	476	419	1	2	69	21	45	10	20	18
Panama	3,382	3,170	16	15	690	545	384	349	301	158
Veraguas	1,398	1,312	15	10	288	244	165	111	267	259

Source: Estadísticas Vitales de D.E.C.

## PANAMA

Table No.

## LEADING CAUSES OF HOSPITALIZATION BY PROVINCE - 1974

	Total	%	Bocas del		Colón	Chiriquí	Darién	Herrera	Los Santos	Panamá	Veraguas
			Toro	Coclé							
Ill defined symptoms	11,373	14.7	-	653	507	643	75	1,598	673	3,340	3,884
Accidents, suicide and homicide	6,388	8.3	155	798	512	1,107	60	470	117	2,164	805
Complications of the puerperium	6,269	8.1	96	290	404	1,068	-	155	-	3,891	365
Other diseases of the genitourinary system	3,854	5.0	113	259	366	496	21	125	188	1,977	309
Abortion	3,734	4.8	50	197	337	556	29	126	-	2,158	281
Pneumonia	3,170	4.1	80	323	330	620	-	103	113	1,234	367
Gastroenteritis	2,000	2.6	90	454	295	274	56	170	299	-	362
Nephritis and nephrosis	1,822	2.4	-	248	-	-	-	108	140	970	356
Intestinal obstruction and hernia	1,657	2.2	-	174	241	-	-	107	-	948	187
Psychosis	1,583	2.1	-	-	-	-	-	-	444	1,139	-
Bronchitis, emphysema and asthma	1,547	2.0	137	318	197	271	12	156	196	-	280
Benign neoplasm	1,256	1.6	-	-	168	-	-	-	-	1,088	-
Neoplasms	867	1.1	-	-	-	-	-	-	-	867	-
Anemias	864	1.1	-	153	-	284	12	-	172	-	243
Avitaminoses and other nutritional deficiency	361	0.5	-	-	-	349	12	-	-	-	-
Complications of pregnancy, childbirth and the puerperium	300	0.4	-	-	-	300	-	-	-	-	-
Infections of skin	158	0.2	63	-	-	-	15	80	-	-	-
Other causes of perinatal morbidity	149	0.2	-	-	149	-	-	-	-	-	-
Ischemic heart disease	136	0.2	-	-	-	-	-	-	136	-	-
Hypertension	111	0.1	-	-	-	-	-	-	111	-	-
Acute Respiratory diseases	66	0.1	51	-	-	-	15	-	-	-	-
Helminthiases	46	0.0	46	-	-	-	-	-	-	-	-
Malaria	17	0.0	-	-	-	-	17	-	-	-	-
Other illnesses	29,459	38.2	841	3,906	2,361	3,210	129	731	1,734	14,628	1,919
Total of illnesses	77,187	100.0	1,722	7,773	5,867	9,178	453	3,909	4,523	34,404	9,358
% distribution of diseases	100	-	2.2	10.1	7.6	11.9	0.6	5.0	5.9	44.6	12.1
Hospitalized population as a % of total population & by prov.	4.8	-	3.5	5.9	3.9	3.5	1.9	5.0	6.2	5.0	5.7

PANAMA

TABLE No.

BIRTH RATES, BY AGE OF MOTHER AND

RURAL - URBAN SECTORS

Age of Mother	1970			1973			Avg. Annual % Charge 1970-73		
	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>	<u>TOTAL</u>	<u>URBAN</u>	<u>RURAL</u>
<u>TOTAL</u>	166	137	198	148	122	182	3.7	3.8	3.7
15 - 19	131	97	173	123	94	166	2.1	1.0	1.4
20 - 24	274	240	315	245	215	285	3.7	3.6	3.3
25 - 29	246	216	278	220	198	248	3.6	2.9	3.7
30 - 34	183	151	217	159	127	197	4.6	5.6	3.2
35 - 39	123	84	161	107	69	152	4.5	6.4	1.9
40 - 44	44	27	63	39	21	61	3.9	8.0	1.0
45 - 49	9	4	15	6	3	11	12.6	9.1	9.8

Live birth/1000 women

Sources: Estadísticas Vitales, D.E.C.

Table No.

THE 10 LEADING CAUSES OF DEATHPANAMA

8th Edition ICDA	Position		Causes	No. of Deaths		Rates *	
	1970	1974		1970	1974	1970	1974
800-999	2	1	Accidents, suicide and homicide	754	882	52.6	54.5
410-414	1	2	Ischemic heart disease	902	742	62.9	45.8
140-239	5	3	Neoplasms	656	701	47.3	43.3
430-438	6	4	Cerebrovascular disease	537	611	37.4	37.8
480-486	3	5	Pneumonia	710	532	49.5	32.9
000-009 561 305.5	4	6	Gastroenteritis	673	500	46.9	30.9
390-392	10	7	Diseases of the circulatory system	201	236	14.0	14.6
630-634 760-779	9	8	Complications of pregnancy child birth, and the puerperium	218	214	15.2	13.2
	8	9	Infant mortality all causes	220	213	15.3	13.2
010-019	7	10	Tuberculosis	278	212	19.3	13.1
<b>TOTAL/10 leading causes</b>				<b>5,149</b>	<b>4,843</b>	<b>484.3</b>	<b>299.3</b>
<b>Other Causes</b>				<b>5,076</b>	<b>4,158</b>	<b>353.9</b>	<b>256.9</b>
<b>General Total</b>				<b>10,225</b>	<b>9,001</b>	<b>712.8</b>	<b>556.3</b>

\* Death per 100,000 inhabitants

Source: Estadísticas Vitales, D.E.C.

Table No.

PANAMATHE 10 LEADING CAUSES OF DEATH1960

<u>7th Edition ICDA</u>	<u>Position</u>	<u>Causes</u>	<u>No. of Deaths</u>	<u>Rates*</u>
000-009 561 305.5	1	Gastroenteritis	688	63.9
800-999 E800-E999	2	Accidents, suicide and homicide	520	48.5
480-486	3	Pneumonia	497	46.2
140-209	4	Neoplasms	470	43.7
430-438	5	Cerebrovascular diseases	427	39.7
390-392	6	Disease of the circulatory system	377	35.0
490-493	7	Bronchitis and asthma	337	31.3
010-019	8	Tuberculosis	288	26.8
033	9	Whooping cough	243	22.6
630-634	10	Complications of pregnancy	220	20.4
<u>Total/10 leading causes</u>			<u>4,067</u>	<u>378.1</u>
<u>Other Causes</u>			<u>4,320</u>	<u>401.6</u>
<u>General Total</u>			<u>8,387</u>	<u>779.8</u>

\* Death per 100,000 inhabitants  
Source: Estadísticas Vitales, D.E.C.

Table No.

THE 10 LEADING CAUSES OF MEDICALLY CERTIFIED DEATHSPANAMA

8th Edition ICDA	Position		Causes	No. of Deaths		Rates *	
	1970	1974		1970	1974	1970	1974
410-414	1	1	Ischemic heart disease	896	736	62.5	45.5
800-999 E 800-E999	4	2	Accidents, suicide and homicide	485	698	33.8	43.1
140-209	2	3	Neoplasms	576	630	40.1	38.9
430-438	5	4	Cerebrovascular disease	428	539	29.8	33.3
480-486	3	5	Pneumonia	526	414	36.7	25.6
000-009 561 305.5	6	6	Gastroenteritis	344	222	23.9	13.7
	8	7	Infant mortality all causes	203	203	14.1	12.5
630-634 760-779	9	8	Complications of pregnancy, child birth and the puerperium	199	200	13.9	12.3
010-019	7	9	Tuberculosis	211	171	14.7	10.6
390-392	10	10	Diseases of the circulatory system	103	150	7.2	9.3
Total/10 leading causes				3,971	3,963	276.8	244.9
Other Causes				1,870	1,824	130.4	112.7
General Total				5,841	5,787	407.2	357.6

\* Death per 100,000 inhabitants  
Source: Estadísticas Vitales, D.E.C.

TABLE No.

Population with Access to Potable Water, by Area  
1970 - 1974  
(In thousands)

	<u>Population</u> <sup>1/</sup>			<u>Population with Access to Potable Water</u>									
	<u>Total</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>	<u>%</u>	<u>Urban</u>	<u>%</u>	<u>Total</u>	<u>%</u>	<u>R U R A L</u>		<u>Well</u>	<u>%</u>
										<u>Aqueduct</u>	<u>%</u>		<u>%</u>
1970	1,434.4	682.8	751.6	1,004.7	70.0	682.8	100.0	322.5	42.9	91.5	12.2	231.0	30.7
1971	1,478.3	710.8	767.5	1,085.8	73.4	710.8	100.0	375.0	48.8	125.4	16.3	249.6	32.5
1972	1,523.5	739.6	783.9	1,142.7	75.0	739.6	100.0	403.1	51.4	145.3	18.5	257.8	32.9
1973	1,570.1	769.6	800.5	1,186.8	75.6	769.6	100.0	417.2	52.1	157.8	19.7	259.4	32.4
1974	1,618.1	796.0	822.1	1,235.2	76.3	796.0	100.0	439.2	53.4	174.2	21.2	264.9	32.2

<sup>1/</sup> Mid-year estimates.

Sources: IDAAN, unpublished data  
Dirección de Estadística y Censo  
Ministry of Planning and Economic Policy, Informe Económico, 1974

PANAMA

Table No.

Number of Practicing Doctors, by Province and  
the Cities of Panama and Colon  
1970 - 1974

	<u>1970</u>		<u>1971</u>		<u>1972</u>		<u>1973</u>		<u>1974</u>	
	<u>No.</u>	<u>Rate</u> <sup>1/</sup>								
<u>Cities</u>										
Panamá	592	14.1	646	17.8	702	18.8	756	19.8	814	20.7
Colón	50	7.4	55	8.0	59	8.5	64	9.1	75	10.5
	<u>857</u>	<u>6.3</u>	<u>1006</u>	<u>7.2</u>	<u>1070</u>	<u>7.4</u>	<u>1172</u>	<u>7.8</u>	<u>1313</u>	<u>8.6</u>
<u>Provinces</u>										
Bocas del Toro	12	4.0	13	4.2	25	7.7	35	10.4	36	10.6
Coclé	27	2.3	36	3.0	34	2.7	39	3.0	41	3.1
Colón	50	4.5	55	4.8	59	5.0	67	5.6	84	6.8
Chiriquí	85	4.0	111	5.1	102	4.6	108	4.7	140	6.0
Darién	4	2.2	5	2.7	4	2.1	4	2.1	4	2.2
Herrera	22	3.0	28	3.8	25	3.3	26	3.4	36	4.6
Los Santos	18	2.5	26	3.6	32	4.4	29	4.0	27	3.7
Panamá	618	10.7	700	11.6	757	12.0	829	12.6	898	13.1
Veraguas	21	1.4	32	2.1	32	2.1	35	2.2	47	3.0

<sup>1/</sup> Rate computed on the basis of the number of doctors for each 10,000 inhabitants. Exclude the indigenous population.

Source: Panama en Cifras, Octubre de 1975

PANAMA

TABLE No. \_\_\_\_\_

Number of Practicing Nurses by Province  
and the Cities of Panama and Colon

	1970		1971		1972		1973		1974	
	<u>No.</u>	<u>Rate</u> <sup>1/</sup>	<u>No.</u>	<u>Rate</u> <sup>1/</sup>	<u>No.</u>	<u>Rate</u> <sup>1/</sup>	<u>No.</u>	<u>Rate</u> <sup>1/</sup>	<u>No.</u>	<u>Rate</u> <sup>1/</sup>
<u>Cities</u>										
Panama	688	16.4	655	18.0	781	21.0	706	18.5	759	19.3
Colon	71	10.5	60	8.7	55	7.9	57	8.1	63	8.8
<u>Provinces</u> <sup>1</sup>	<u>1012</u>	<u>7.4</u>	<u>948</u>	<u>6.8</u>	<u>1059</u>	<u>7.3</u>	<u>1063</u>	<u>7.4</u>	<u>1131</u>	<u>7.4</u>
Bocas del Toro	15	5.0	12	3.8	21	6.5	35	10.4	43	12.6
Coclé	28	2.4	20	1.6	19	1.5	23	1.8	21	1.6
Colón	71	6.4	60	5.3	55	4.7	62	5.2	65	5.3
Chiriquí	81	3.8	79	3.6	88	4.0	95	4.2	108	4.7
Darién	6	3.4	6	3.3	5	2.7	4	2.1	3	1.6
Herrera	23	3.2	24	3.2	19	2.5	18	2.4	16	2.1
Los Santos	23	3.2	18	2.5	17	2.3	26	3.6	19	2.6
Panamá	739	12.8	709	11.8	818	13.0	781	11.9	834	12.1
Veraguas	26	1.8	20	1.3	17	1.1	19	1.2	22	1.4

<sup>1/</sup> Rate computed on the basis of the No. of nurses for each 10,000 inhabitants. Exclude the indigenous population.

Source: Panama en Cifras, Octubre de 1975.

## PANAMA

TABLE No.

NUMBER OF PRACTICING DENTISTS BY PROVINCE AND THECITIES OF PANAMA AND COLON1970 - 1974

	<u>1970</u> <sup>1/</sup>		<u>1971</u> <sup>1/</sup>		<u>1972</u> <sup>1/</sup>		<u>1973</u> <sup>1/</sup>		<u>1974</u> <sup>1/</sup>	
	<u>No.</u>	<u>Rate</u>								
<u>Cities</u>										
Panama	93	22.2	94	25.9	93	25.0	100	26.2	107	27.2
Colon	10	14.7	8	11.6	4	5.7	8	11.3	9	12.6
<u>Provinces</u>	<u>164</u>	<u>12.0</u>	<u>156</u>	<u>11.1</u>	<u>155</u>	<u>10.7</u>	<u>187</u>	<u>12.4</u>	<u>210</u>	<u>13.7</u>
Bocas del Toro	3	10.0	1	3.2	4	12.4	4	11.9	7	20.6
Coclé	10	8.4	8	6.6	8	6.4	10	7.8	12	9.2
Colón	10	9.0	8	7.0	4	3.4	9	7.5	10	8.1
Chiriqui	19	9.0	17	7.8	13	5.8	19	8.4	29	12.5
Darien	1	5.6	1	5.5	1	5.3	1	5.2	2	10.9
Herrera	6	8.2	5	6.8	6	8.0	7	9.1	6	7.7
Los Santos	7	9.7	6	8.3	8	11.0	11	15.1	10	13.7
Panama	98	16.9	103	17.1	104	16.5	115	17.5	125	18.2
Veraguas	10	6.7	7	4.6	7	4.5	11	7.0	9	5.7

1/ Rate computed on the basis of the No. of dentists for each 100,000 inhabitants. Exclude the indigenous population

TOTAL POPULATION, WORKFORCE AND POPULATION COVERED BY

THE SOCIAL SECURITY SYSTEM - 1970 - 1974

(In thousands)

Total Population <u>1</u> /	1,434.4	1,478.3	1,523.5	1,570.1	1,618.1	3.1
Economically Active Pop. % Unemployed						

PANAMA

TABLE No.

NUMBER OF HEALTH INSTITUTIONS & BEDS

1970 - 1974

<u>Health Institutions</u>	<u>1970</u>		<u>1971</u>		<u>1972</u>		<u>1973</u>		<u>1974</u>	
Hospitals & Hospital Clinics	33		35		39		41		41	
Health Centers	37		50		63		65		71	
Health Posts	109		105		96		112		130	
<u>Beds</u>	<u>No.</u>	<u>Rate</u>								
<u>Cities</u>										
Panama	2,656	6.3	2,754	7.6	2,872	7.7	2,837	7.4	2,855	7.3
Colon	341	5.0	356	5.2	289	4.1	294	4.2	290	4.1
<u>Provinces</u>	<u>4,974</u>	<u>3.7</u>	<u>5,230</u>	<u>3.7</u>	<u>5,665</u>	<u>3.9</u>	<u>5,731</u>	<u>3.8</u>	<u>5,880</u>	<u>3.8</u>
Bocas del Toro	176	5.9	177	5.7	257	7.9	264	7.8	257	7.5
Coclé	242	2.0	244	2.0	238	1.9	253	2.0	280	2.1
Colón	341	3.1	415	3.6	348	3.0	398	3.3	398	3.2
Chiriquí	567	2.7	583	2.7	655	2.8	636	2.8	652	2.8
Darien	43	2.4	65	3.6	69	3.7	61	3.2	60	3.3
Herrera	209	2.9	232	3.1	242	3.2	280	3.6	298	3.8
Los Santos	199	2.7	195	2.7	394	5.4	407	5.6	487	6.6
Panama	3,003	5.2	3,098	5.1	3,272	5.2	3,224	4.9	3,246	4.7
Veraguas	194	1.3	221	1.4	210	1.4	208	1.3	202	1.3

Source: Panama en Cifras, Octubre 1975

TABLE No.

PANAMA

TOTAL POPULATION, WORKFORCE AND POPULATION COVERED  
BY THE SOCIAL SECURITY SYSTEM - 1970 - 1974

(In thousands)

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Avg. Annual % Rate of Increase</u>
Total Population <u>1/</u>	1,434.4	1,478.3	1,523.5	1,570.1	1,618.1	3.1
Economically Active Pop. <u>2/</u>	467.5	477.6	488.6	499.0	517.4	2.6
% Unemployed	7.1	7.6	6.8	7.0	5.8	-
Population Covered by S.S.	324.1	382.8	438.3	488.9	543.6	13.8
Employees	169.9	187.3	202.2	218.1	235.3	8.5
Dependents	141.1	179.4	217.3	248.8	282.6	19.0
Retirees & pensioners	13.1	16.1	18.8	22.0	25.7	18.4
Population covered by S.S. as a % of total population	22.6	25.9	28.8	31.1	33.6	-
Employed population covered by S.S. as a % of Eco. Active Pop.	36.3	39.2	41.4	43.7	45.5	-

1/ Mid-year estimates2/ Population 15 years of age and over

Source: Panama en Cifras, Octubre 1975

Table No.

STUDENTS ENROLLED & GRADUATES FROM THE  
FACULTIES OF MEDINE AND DENTISTRY OF THE  
UNIVERSITY OF PANAMA

1970 - 1974

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>Enrollment</u>	<u>245</u>	<u>259</u>	<u>368</u>	<u>523</u>	<u>738</u>
Faculty of Medicine	156	153	197	304	486
Faculty of Dentistry	89	106	171	219	252
<u>Graduates</u>	<u>23</u>	<u>47</u>	<u>58</u>	<u>47</u>	<u>46</u>
Faculty of Medicine	23	47	51	44	25
Faculty of Dentistry	-	-	7	3	21

Source: Panama en Cifras, Octubre 1975

CATEGORIAS DE ANALISIS PARA EL ESTUDIO DEL SECTOR SALUD EN LA REPUBLICA DE PANAMA

Categoría de análisis	Hipótesis	Elementos de estudio	Datos e indicadores
<p>NIVEL Y ESTRUCTURA DE LA SALUD</p>	<p>A nivel del país como un todo los indicadores de salud han experimentado un cambio favorable durante el último decenio, sin embargo estos indicadores han experimentado cambios ramos significativos a nivel de:</p> <p>a) El área rural b) De las poblaciones residentes en las zonas marginales del área urbana.</p>	<p>a) Definición de las zonas marginales urbanas. b) Mortalidad y morbilidad en el país y provincias por:</p> <ul style="list-style-type: none"> <li>-- Áreas urbana y rural.</li> <li>-- Áreas marginales urbanas.</li> <li>-- Grupos de edad:                             <ul style="list-style-type: none"> <li>- 1 año de edad</li> <li>1- 4 años de edad</li> <li>5-19 años de edad</li> </ul> </li> <li>Adultos</li> <li>Mujeres en edad fértil</li> <li>15-49 años</li> <li>50 años y más</li> </ul>	<p>I. MORTALIDAD (Serie histórica 1970-1974).</p> <ol style="list-style-type: none"> <li>A. Mortalidad general según certificación médica.</li> <li>B. Cinco principales causas de muerte.</li> <li>C. % de diagnósticos mal definidos.</li> <li>D. % de daños (crónicos) no reducibles.</li> <li>E. % de daños transmisibles.</li> <li>F. Razón de causas transmisibles y de los no reducibles.</li> <li>G. Mortalidad infantil.</li> <li>H. Mortinatalidad 0-1 semana.</li> <li>I. Mortalidad de 0-4 años.</li> <li>J. Mortalidad neonatal.</li> <li>K. Cinco principales causas de muerte de menores de un año.</li> <li>L. Mortalidad materna.</li> <li>M. Índice de Sieroop.</li> <li>N. % de atención profesional al parto.</li> </ol> <p>II. MORBILIDAD</p> <p>Muestreo de establecimientos.</p>
	<p>Identificación y evaluación de los factores condicionantes del nivel de salud en el país y en las provincias por:</p> <ul style="list-style-type: none"> <li>-- Áreas rural y urbana</li> <li>-- Áreas marginadas urbanas</li> </ul>	<ol style="list-style-type: none"> <li>a. Población por grupos de edad y sexo (1970-1985).</li> <li>b. Tamaño y crecimiento de la población (fecundidad) (1970-1974).</li> <li>c. Dispersión de la población, según magnitud de lugar poblado.</li> <li>d. Estado nutricional (indicadores indirectos e por encuesta).</li> <li>e. Analfabetismo y escolaridad.</li> <li>f. Ingreso monetario.</li> <li>g. Agua potable, excretas y basura.</li> </ol>	

CATEGORÍAS DE ANÁLISIS PARA EL ESTUDIO DEL SECTOR SALUD EN LA REPÚBLICA DE PANAMÁ

(Continuación)

Categoría de análisis	Hipótesis	Elementos de estudio	Datos e indicadores
CONFIGURACION DE LA DEMANDA DE SERVICIOS DE SALUD	Un porcentaje elevado de la demanda de servicios de salud está constituido por el grupo de población que conoce y utiliza en forma injustificada estos servicios, --a la par que existen grupos marginados que por diferentes causas no los utilizan.--	1. Características de la demanda de servicios de salud: a) <u>Demanda satisfecha</u> -- Justificada. -- Injustificada. b) <u>Demanda marginada</u> -- Rechazada. -- No buen servicio (diversas causas).	1. Evaluación de la demanda rechazada. 2. Porcentaje de población que tiene una concentración de consultas superior a
POLITICAS FORMALES Y EXPLICITAS EN EL SECTOR		1. Descripción de las características de las políticas sectoriales de salud	Instrumentos legales. Instrumentos políticos. (Cartas del General).
DESCRIPCION Y EXPLICACION DE LA POLITICA DE SALUD IMPERANTE	1. La estructura institucional del sector limitas a) La atención eficiente de la población. b) La consolidación del proceso de integración de servicios de salud.	1. Organización formal y la operante real. 2. Delimitación del sector salud incluyendo aspectos de la función reguladora gubernamental sobre el sector privado. 3. Mecanismos de coordinación.	1. Legal 2. Político 3. Técnico
	2. No se conoce realmente la población cubierta por los servicios de salud ya que una proporción elevada de la misma demanda servicios tanto en el Ministerio de Salud como en la Caja de Seguro Social.	1. Identificar la cobertura geográfica y poblacional (cuantificación). Características: legales, técnicas, políticas y administrativas. 2. Investigar factores condicionantes (accesibilidad).	1. Número de asegurados o beneficiarios atendidos en establecimientos del Ministerio de Salud. 2. Distritos incorporados al Régimen del Seguro Social.
	3. Las disposiciones contenidas en el artículo 107 de la Constitución vigente y las reformas a la Ley del Seguro Social obligan la transformación y cambio de las organizaciones de servicios de salud vigentes.	1. Características de las dos organizaciones del sector público que brindan servicios de salud, con énfasis en los siguientes sistemas administrativos: -- Sistema financiero. -- Administración de personal. -- Procedurías. -- Mantenimiento.	al Ministerio

act 21

Mecanismo Externo Post.

act 21

act 21

act 28

CATEGORIAS DE ANALISIS PARA EL ESTUDIO DEL SECTOR SALUD EN LA REPUBLICA DE PARAGUAY

(Continúa)

Categoría de análisis	Hipótesis	Elementos de estudio	Datos e indicadores
DESCRIPCION Y EXPLICACION DE LA POLITICA DE SALUD IMPERANTE		<p>-- <u>Análisis de flujo de fondos.</u></p> <p><u>Ingresos</u></p> <p>-- Origen y disponibilidad.</p> <p>-- Utilización y precios.</p> <p>-- Características según edad y cantidad.</p>	Identificación actuales.
	La producción por unidad de recurso puede ser aumentada.	<p><u>Producción</u></p> <p>-- Volumen, tipo y estructura.</p> <p>-- Distribución.</p>	
	El rendimiento de los recursos puede ser mejorado.	<u>Utilización de recursos.</u>	Serie histórica de la utilización de los recursos.
	El costo neto de los instrumentos puede hacerse descender incrementando los rendimientos.		Investigación de costos de egresos en los principales hospitales gubernamentales.
	Los programas de las diversas instituciones que brindan servicios de salud son regulados por políticas y normas distintas y en ocasiones antagónicas.	<p>- Justificación.</p> <p>- Definición.</p> <p>- Propósito.</p> <p>- Objetivos.</p> <p>- Metae.</p> <p>- Organización y estructura.</p> <p>- Presupuestos.</p> <p>- Normas, procedimientos y evaluación.</p>	<p>- Existe documento que contenga los elementos de estudio.</p> <p>- Reconstrucción de las políticas y programas investigados.</p>
ES EL SECTOR SALUD Y SU RELACIONES CON LAS ORGANIZACIONES DE PARTICIPACION SOCIAL	<p>Paso a que existen políticas que tienden a incrementar la participación popular en el planeamiento, ejecución, supervisión y evaluación de los programas de salud, es necesario mejorar los esfuerzos para garantizar una participación real y efectiva de la población en los programas de salud.</p>	<p><u>Elementos formales</u></p> <p>-- Constitución.</p> <p>-- Leyes.</p> <p>-- Reglamentos.</p> <p>-- Organizaciones para la participación.</p> <p><u>Elementos operantes</u></p> <p>-- Comités de Salud.</p> <p>-- Patronatos.</p> <p>-- Juntas locales y comunales.</p> <p>-- Grupos llamados cívicos.</p>	<p>- Producción de bienes y servicios.</p> <p>- Número de miembros activos por Comité de Salud.</p>

SITUACION Y PROBLEMÁTICA	OBJETIVOS	ESTRATEGIA	PROGRAMAS	FUENTES DE FIN y A.T.	EVALUACION
<p>I. NIVEL Y EST. DE SALUD</p> <p>A. Retraso del Area Rural</p>	<p>A. Ampliar Cobertura Rural</p>	<p>Aumentar los:</p> <ul style="list-style-type: none"> <li>-Servicios Médicos Rurales en base</li> <li>- del programa preventivo curativo de atención médica</li> <li>-Reforzar los servicios médicos de apoyo</li> </ul>	<p>Salud Familiar (Ver Secc. posteriores)</p> <p>Epidemiología</p> <p>Educación y Org. de la Comunidad</p>	<p>Mat. Inf. Adultos S. Mental S. Dental</p> <p>Enf. Trans. Veterinaria y Alimentos</p>	
	<p>B. Mejorar el Ambiente Rural</p>	<p>Aumentar los prog.:</p> <ul style="list-style-type: none"> <li>-Salud Ambiental en base de los programas de desarrollo rural con base a disminuir migración a zonas urbanas</li> </ul>	<p>Agua Potable</p> <ul style="list-style-type: none"> <li>-Pozos y acueductos rurales</li> </ul> <p>Excretas</p> <ul style="list-style-type: none"> <li>-(letrinización)</li> <li>-Control de basuras</li> <li>-Control de vectores Malaria A. E.</li> </ul>	<p>Nacionales y AID</p>	
	<p>C. Mejorar Estado Nutricional</p>	<p>Aumentar la cantidad de alimentos producido y consumido en base de educación de la comunidad</p>	<p>Nutrición y Huertos Comunitarios</p> <p>Cría de Aves y Peces</p> <p>Educación Nutricional</p>		
<p>B. Retraso de Areas Marginales Urbanas</p>	<p>A. Ampliar la cobertura y mejorar la calidad</p>	<p>Aumentar los servicios en areas marginales urbanas</p>	<p>IDEM</p>		
	<p>B. Mejorar el ambiente</p>	<p>Aumentar y mejorar el ambiente en base a los programas de saneamiento ambiental y en base al programa de reducir migración urbana</p>	<p>Agua potable</p> <ul style="list-style-type: none"> <li>Acueductos</li> <li>Mejorar vivienda (M.V.)</li> </ul> <p>Excretas</p> <ul style="list-style-type: none"> <li>Alcantarillado</li> </ul> <p>Control de Basuras</p> <p>Control de vectores (A.E. y roedores)</p> <p>Salud Industrial</p>		
	<p>C. Mejorar el Estado Nutricional</p>	<p>Aumentar cantidad y mejorar calidad del consumo en lo posible mediante la acción del Ministerio</p>	<p>Educación Nutricional</p> <p>Producción de alimentos</p>		

## II. ESTRUCTURA INSTITUCIONAL

- A. La estructura limita la eficiencia y consolidación de servicios
- B. Con la duplicidad de agencias se duplican los servicios
- C. Leyes vigentes obligan modificación de la organización del sistema

Estructura institucional adecuada

Integración de servicios M.de S. y CSS a nivel regional comenzando con las que presentaban mayores problemas

Unificación de programas técnico administrativos

Recursos adecuados (ffsicos, financieros y humanos)

Designación de un Director Regional

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## III. RECURSOS

### A. Humanos

Se distribuyen y utilizan en forma adecuada

Existe deficit de algunos recursos

Distribución adecuada y uso de los recursos

Adiestrar personal en cantidad y calidad suficiente.

Integrar el adiestramiento del personal de salud con miras a la formación de equipos de salud

Estimular la formación de asistentes de salud para el desarrollo de la atención primaria de salud en áreas rurales y mantener programas de educación continuada.

Decentralización de formación de Auxiliares de Enfermería.

Establecimiento de Escuela de Enfermería Comunitaria de Azuero

Limitación en la formación de recursos humanos en profesionales donde se espera exceso (Propuesta)

Incremento salarial por trabajar en áreas de difícil acceso.

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### B. Capacidad

IDEM

Que existan instalaciones adecuadas de salud en los lugares donde sea necesario.

Integrar recursos y financiamiento del sector salud.

Construir servicios de salud de acuerdo a las necesidades con énfasis en área rural y urbana marginal.

Reparar y remodelar facilidades existentes.

Establecer un programa de mantenimiento de instalaciones.

Dotar y mantener el equipo básico necesario para el funcionamiento adecuado.

II. RECURSOS (Cont..)

C. Financiamiento

Racionalizar el costo de los servicios tratando de lograr el máximo de beneficios.

Integrar recursos y financiamiento del sector

(Se aclararía al tener el informe)

IDEM

IDEM

D. Insumos

Insumos adecuados a las necesidades de los servicios de salud.

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Reforma administrativa incluyendo reforma del sistema legístico del sector de salud pública.

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I. MANEJO DE LOS SERVICIOS

Mecanismos de planificación no responden en forma satisfactoria a las demandas de todos los niveles.

Proceso de planificación adecuado.

Formulación del diagnóstico del sector. El plan se establecería, ejecutaría y evaluaría conjuntamente (Diag. de Salud). Se pretende lograr una reforma administrativa integrada con el proceso de integración del MOH y la CSS.

Reforma administrativa: Unificación de programas técnico/administrativos

La producción por unidad recurso puede ser aumentada.

Aumentar productividad.

Aumentar rendimiento

Aumentar eficiencia

El rendimiento de los recursos puede ser mejorado.

Políticas y normas homogéneas.

El costo medio de los instrumentos puede hacerse descender.

Programas de diversas instituciones son regidas por políticas y normas distintas.

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Y. ORGANIZACIONES DE PARTICIPACION SOCIAL

Es necesario mejorar los esfuerzos para garantizar una participación real y efectiva de la población en los programas de salud.

Participación real y efectiva de la población en los programas de salud.

Se trabaja con Comités de Salud especialmente en los programas de aumentar la cobertura médica, saneamiento ambiental, y nutrición, y dando énfasis a las áreas rurales y marginadas urbanas dentro de la política nacional multisectorial de participación comunal.

Programa de Comités de Salud relacionado con todos los programas de oferta de servicios médicos, de saneamiento ambiental y nutrición.